

# BikesEtc

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SEPTEMBER 2015 £4.75

THE BIG TEST

## DO-IT-ALL ROAD BIKES

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EXCLUSIVE

### DAVID MILLAR

From pro to pundit,  
his path to redemption

MUST-DO RIDES

Cheddar, Rutland  
and Alpe d'Huez

FITNESS

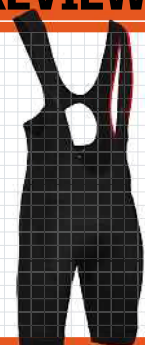
Recover faster  
to get fit quicker

PERFORMANCE

The truth about  
booze and biking

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PAGES OF  
REVIEWS



RATED...

- BIKING BACKPACKS
- BIBSHORTS
- SPD SHOES
- BIKE CLEANERS
- BRAKE PADS
- CLIP-ON AERO BARS

## ITALIAN STALLIONS

Pinarello, Colnago and  
Bianchi go head-to-head

**WIN!** A COLNAGO CLX CARBON ROAD BIKE WORTH £3,500 p55





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# BikesEtc

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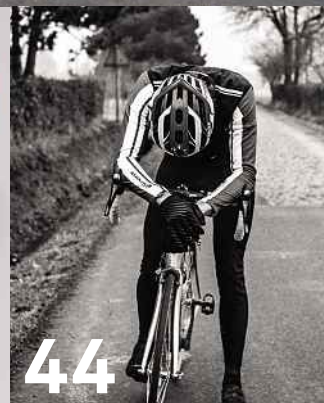
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Photography: Danny Bird

Assisted by: Adrian-Catalin Volcinschi

**Clothing:** Sugoi RS Pro jersey, £80, [cyclingsportsgroup.co.uk](http://cyclingsportsgroup.co.uk); Castelli Velocissimo Due bibshorts, £100, [castellicafe.co.uk](http://castellicafe.co.uk); Specialized S-Works Prevail helmet, £160, [specialized.com](http://specialized.com); Shimano SH-R171 shoes, £150, [madison.co.uk](http://madison.co.uk); Craft AB Glove, £16, [craft.se](http://craft.se)

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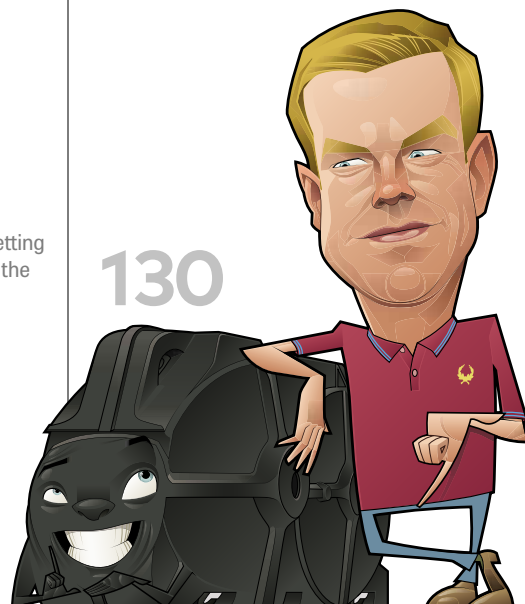
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## STAFF PICKS

SOME OF OUR FAVOURITE PRODUCTS IN THIS MONTH'S ISSUE

**RAPHA  
BACKPACK**  
PAGE 70

This Rapha backpack with the trademark flash of pink does an excellent job of disguising its cycling credentials. Worn with the Resolute Bay jeans (p13) and a pair of cycling trainers (p66) it's easily possible to go undercover as a normally dressed human between stints on the bike.

*Wesley Doyle, Editor*

**MOOR BEER  
CO RIDER'S  
REVIVAL**  
PAGE 50

This spent the past week sitting in the fridge patiently waiting for 10pm on press night. Sold as a post-ride refresher it's equally uplifting after an arduous stint in the office. And with just 3.8% abv, we were fit to ride home afterwards.

*Andy Waterman,  
Deputy Editor*

**GIRO RUMBLE  
SHOES**  
PAGE 66

With only a 20-minute ride from home to BikesEtc HQ it hardly seems worth getting dressed up in cycling kit each morning. Most days I'm happy to bumble in wearing my civvies. Still, it's nice to wear some proper cycling shoes, like these cool trainers from Giro.

*Joseph Delves,  
Staff Writer*

**KMC X11-SL  
DLC CHAIN**  
PAGE 56

Yes, I know it doesn't take long to give the bike a quick wipe down after a bad weather ride, but I'm just too lazy, and my colleagues have been known to comment on the grime-caked state of my chain. My thinking in fitting this smart chain from KMC is that I'll have more incentive to keep it clean – especially at the £83 asking price.

*David Kenning,  
Production Editor*



## ED'S LETTER



**A**t the time of writing Chris Froome has just won his second Tour de France, the third victory for a British rider in pro cycling's most prestigious event in the space of just four years. While it doesn't pay to be smug in such situations, we Brits can surely allow ourselves a pat on the back for our riders' current high standing in the world of cycling.

It wasn't always this way though as our interview with former pro David Millar (page 38) reminds us. Millar rode through a dark time in pro cycling history and not only lived to tell the tale but has also become an inspiration for the current crop of UK talent.

For those of us not quite at pro level the UK's busy sportive season rolls on and our

guide to post-ride recovery (page 44) shows us how to get the inevitable aches and pains under control to ensure we're race ready for the next challenge – as well as being fit for work the day after.

Part of completing any event – whether it's the Tour de France or a sportive such as the Isle of Man CC (page 124) – is a celebratory tipple. Booze and bicycles have a chequered history and our feature on page 50 looks at that relationship and the best way to balance imbibing and biking.

All this plus the usual bike, kit and gear reviews, events calendar, route recommendation, training tips and nutrition advice to keep you out on the road until our next issue, on sale 9 September.

**'We Brits can allow ourselves a pat on the back for our riders' high standing in world cycling'**

**Wesley Doyle, Editor**



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 **GIANT**



# HOW WE TEST

## The UK's most in-depth bike tests

► The *BikesEtc* team are a varied bunch, and that's reflected in the type of riding we do too. We all commute by bike, daily distances varying from 10 to 26 miles, and our extracurricular cycling activities go from regular sportive riding, to time trialling and club-level racing, to frankly insane audaxing. What unites the team, though, is their love of all things two-wheeled, which gives *BikesEtc* a good spread of experience when it comes to testing bikes, gadgets and garments.

When it comes to buying new cycling kit, making the right decision is equally important whether you're

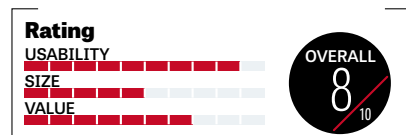
spending £10 on a pair of socks or several thousand on a whole new bike, and the way we test reflects that. We use an extensive set of criteria, including performance, ease of use, range of features, build quality and value for money. Before we even begin testing, we put our minds to coming up with the best way to test every product, whether that means building a special rig to test pump pressure or standing in a pitch-black country lane in the middle of the night to measure lighting beam patterns.

We go the extra mile to find out if the products will be right for you, whatever your cycling style.

### THE RATINGS

For each group test, we score the products based on a comprehensive range of criteria. There isn't space to give a full breakdown of the scoring, but we highlight the most important and relevant features so you can see in which areas each product performs especially well, and where its weak spots lie.

Giving extra weight to the most important features, we add up the ratings for each product and convert them into an overall score out of 10.



### BEST VALUE

Winners of this award may not have the highest overall score in their group test, and may not be the cheapest, but they will always represent especially good performance for their price.



### BEST IN TEST

The overall winner in each test. Scoring highly in all criteria, this will be an excellent all-rounder, often with an extra something – a touch of style, a special feature – that sets it apart.



### GOLD AWARD

This award goes to bikes, kit or components with exceptional levels of performance and design. Don't expect to see it every issue – we only hand it out when it's truly deserved.

### THE TESTERS



#### ANDY WATERMAN

Deputy Editor and holder of a sports science degree, Andy races on the road and off it in cyclocross, and it's his all-round expertise and rigorous approach to testing that makes *BikesEtc*'s bike tests the UK's most in-depth.



#### JOSEPH DELVES

His job title may be Staff Writer (and a very good one he is too), but Joe is more commonly known as 'The Fixer', his years on bike shop floors meaning what he doesn't know about bikes probably isn't worth knowing.



#### DAVID KENNING

Brompton commuter by day, intrepid audaxer by night (and day, and then night again), the number of hours David spends in the saddle would make most people weep. On the plus side, it means products get a thorough testing.

# BikesEtc

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# Départ



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**Y**ou wouldn't be alone if you hadn't heard of the Ceepo brand before, but it isn't a new company. Founded in 2003, Ceepo specialises in bikes for triathlon – middle and long distance in particular. When we found ourselves coerced into entering a duathlon (run-bike-run), it seemed like the perfect opportunity to test a bike from a company with proper multi-sport heritage.

Previous Ceepo bikes have been tri-specific, so have never needed conform to UCI regulations regarding aerodynamics and rider position. The Mamba attempts to be more of an all-rounder, combining aerodynamic design features you'd expect to see on a specialist wind-cheating triathlon or time-trial bike with more traditional drop handlebars. It's UCI compliant too, so you could use it to enter a road race – or a sportive, or anything else that requires a fast bike.

Key to the Mamba's do-it-all ability is the reversible seatpost that offers the rider two



Multiple bottle cage positions hint at Ceepo's triathlon heritage



The tubing is shaped for aerodynamics but still UCI compliant

positions. Set backwards, it mimics a normal road bike, but set forwards, it gives a very aggressive riding position designed for use with clip-on aero bars (see our review on page 84). In use, the Mamba immediately feels different to a standard road bike. The steep seat tube angle gives a shorter reach and puts you in a lower, more aggressive position. This geometry is mirrored by the ride, offering fantastic stiffness and power transfer, while the 1,100g frame weight is competitive for an aero road machine and means a light overall bike weight is easy to achieve.

The short reach does affect climbing out of the saddle, with less room to the cockpit out front, but the Mamba wasn't designed for climbing alpine cols and while sat in the saddle, climbing performance is fine.

With the Mavic Ksyrium SLS wheels and 23mm tyres, the ride is firm but switching to a set of deeper, carbon fibre Reynolds Attack wheels improved comfort while also boosting performance. Our test bike came fitted with a mid-spec build of Shimano 105 and PRO components. The Rotor chainset, fitted with 53/39 oval Q-Rings is another nod towards what it was designed for: going fast.

## The Mamba proved fast, helping us set the fastest bike split on The Pig duathlon

The Mamba really comes into its own when fitted with a set of clip-on aero bars and set up in the forward seatpost position. A low stack height on the head tube gives plenty of scope to improve fit, allowing even shorter riders to achieve an aerodynamic position.

On the road, when used in this position the bike handles well and doesn't feel fidgety or nervous. It takes wide sweeping corners with ease, although tighter, more technical cornering and descending takes a little more effort. We used the Mamba to take part in 'The Pig' (brutalevents.co.uk), which claims to be the toughest duathlon in the UK, set in the Welsh mountains with a 105-mile bike section featuring a whopping 3,300m of climbing. The course was constantly rolling, with several prolonged climbs, but also flatter sections along the beautiful North Wales coast. The bike proved more than able, being

comfortable and fast, helping us to set the fastest bike split. Ceepo makes a big point about the far forward position making the transition from bike to run easier and we'd agree. Expecting to be slow after the arduous cycle leg, we found we could run as normal from the very beginning, with no 'jelly legs'.

The Mamba's versatility makes it ideal for people looking for a bike that can adapt to different types of riding quickly and easily. It's great for multi-sport events, where it can perform at a similar level to triathlon-specific bikes, and would be a great choice for anyone dipping a toe into time trialling too. Ultimately, the Ceepo Mamba clearly isn't designed for long-distance cruising, but if you're addicted to speed and want a bike that can perform well – with or without aero bars clipped on – it's well worth considering.

### BikesEtc Rating

#### PROS

Aggressive geometry and aero design

#### CONS

Tricky handling on technical courses

OVERALL  
8  
10

Words: Matt Page





Oval chainrings will make you as fast as Chris Froome... possibly



**Frame:** Ceepo Mamba with integrated, reversible seatpost, full carbon fork, PF30 BB

**Groupset:** Shimano 105 5800, Rotor 3d chainset with 53/39 Q-ring chainrings, 11-25 cassette

**Bars:** PRO Vibe

**Stem:** PRO PLT

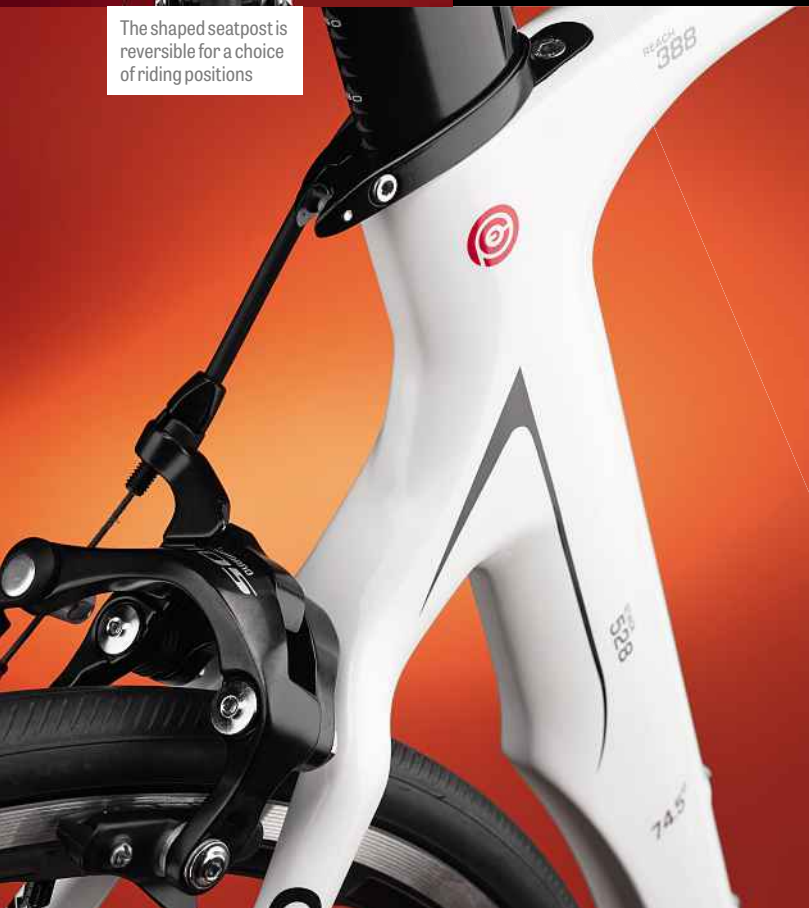
**Saddle:** Fizik Arione

**Wheels:** Mavic Ksyrium SLS

**Tyres:** Mavic Yksium, 23c

**Contact:** velotechservices.co.uk

The shaped seatpost is reversible for a choice of riding positions



## RESOLUTE BAY CORDURA DENIM JEANS


Smart and functional, on or off the bike

**PRICE:** £110 **CONTACT:** [resolutebayclothing.com](http://resolutebayclothing.com)

**C**onsidering it's the wardrobe staple for everything from leisurewear to prison uniforms, denim fails to cut much of a dash when it comes to cycling. In fact, even getting on a bike in slim-fitting jeans is beyond the voluminous quads that occupy the *BikesEtc* office.

Luckily, the last decade or so has seen a proliferation of bike-friendly jeans, complete with stretch so you can not only get your leg over but pedal relatively freely too. That's exactly what you get in these jeans from Resolute Bay – a hard-wearing denim/

Cordura hybrid with a bit of stretch and some quality detailing, including zip-up reflective panels across the bum and on the turn-ups. Unlike some reflectives, the stuff used by Resolute Bay is unnoticeable until you shine a light on it, at which point, your backside lights up like Blackpool promenade at Christmas.

Cut, colour and features are good, and they're made in the UK, so that £110 doesn't look too bad (it's what you'll pay for premium pants from Levi's, Nudie or Diesel). Also worth checking out are the limited edition in Japanese denim. 





## FABRIC CAGELESS BOTTLE SYSTEM

Free yourself from your cage

**PRICE:** £11.99 **CONTACT:** fabric.cc

**B**ased in Frome in the southwest of England, Fabric is a small company making a big name for itself. Take its air-bubble saddle, the Cell – its soft, air-filled cover looks a lot like the padding in running shoes. That's because rather than going to a saddle manufacturer, Fabric worked with a company that makes trainers. Clever, eh?

In a similarly innovative vein, Fabric's new bottle system uses studs and a proprietary bottle design instead of a cage. It's neat, light and hugely secure. Only 600ml bottles are available at the moment, but a 750ml version is coming out towards the end of the year – and all of them will be available in a range of colours to match your ride. Bottles also come with coordinating studs that fit securely to your bike's bottle bosses.

Will that vice-like fit last as the studs and bottle-retention clips wear? With bottles being replaced regularly for hygiene and clumsiness reasons, we can't see that being a problem.



## MASON X HUNT 4SEASON DISC WHEELSET

Handsome and practical disc wheels from UK-based Hunt

**PRICE:** £349 **WEIGHT:** 1.54kg  
**CONTACT:** huntbikewheels.com

**P**rior to the launch of their new wheel range, the designers at Hunt spent hundreds of hours sketching plans and rounding up components from their base in the undulating hills of the South Downs. Around the same time, a few miles away in Hove, bike designer Dom Mason was going through a similar process looking for wheels on which to roll out his debut range of bicycles.

With both brands sharing an emphasis on usable technology, understated design and the ability to withstand grimy UK conditions, collaboration between the two seemed obvious. The result is these understated disc hoops. Don't let their looks fool you – while traditional nipples and readily serviceable J-bend spokes may look classic, the rims they're laced to are bang up-to-date – in use, they're incredibly comfortable, probably thanks to the wider rim bed that naturally suits higher-volume tyres. Also tubeless-compatible, they paired well with the 28c Continental Grand Sports we fitted.

Bowling along over rough terrain, these ride like a much lighter wheelset up the climbs, despite the added disc-brake stuff. Overall, these are a killer mid-priced set of hoops with all the flashiness of a top pair of hand-builts.

# SCOTT SPEEDSTER 20

After a sub-£1,000 road bike? Put this on your shortlist

**PRICE:** £899 **CONTACT:** scott-sports.com

**I**f one groupset has defined the first year of *BikesEtc*'s existence, it's Shimano 105. It performs so well that manufacturers are happy to put it on bikes costing up to £2,000 (allowing budget for better frames/wheels/components) and it's such good value that it even appears on some well-specced bikes way below £1,000.

Take for instance this Scott Speedster 20, which at £899, features our favourite 11-speed 105 shifters and derailleurs, paired to non-series brakes and chainset. That's a great starting point for any bike. The 105 shifters are so comfortable in your hand that they feel almost identical to Shimano's top-end Dura-Ace, and the shifting is so crisp and accurate that the well-specced Speedster often feels far more expensive than it really is.

The shape of the frame is ideal for pretty much all varieties of road riding, from commuting to serious sportive riding, although unsurprisingly, given the price, it's a little bit on the portly side. Still, this is easily sorted and a swap of wheels at some point down the line will help shed a decent amount of weight.

The Kenda Kriterium tyres are far from our favourites, but they do the job adequately and when they wear out, you'd do well to go for something wider (going up from 23mm to 25mm), a little lighter and with more grip.

Rather than opting for a low and aggressive position on the Speedster, we left a couple of spacers under the stem on our 54cm test bike to ride in a more upright, relaxed, but still efficient set-up. Coping with everything we threw at it, the Speedster was an enjoyable ride, quick and confident and remarkably comfortable given its oversized aluminium tubing.

Overall, the Speedster is an excellent bike at a competitive price – a worthy competitor for the sub-£1,000 crown. It's definitely one bike that transcends the budget label. *✂*

## BikesEtc Rating

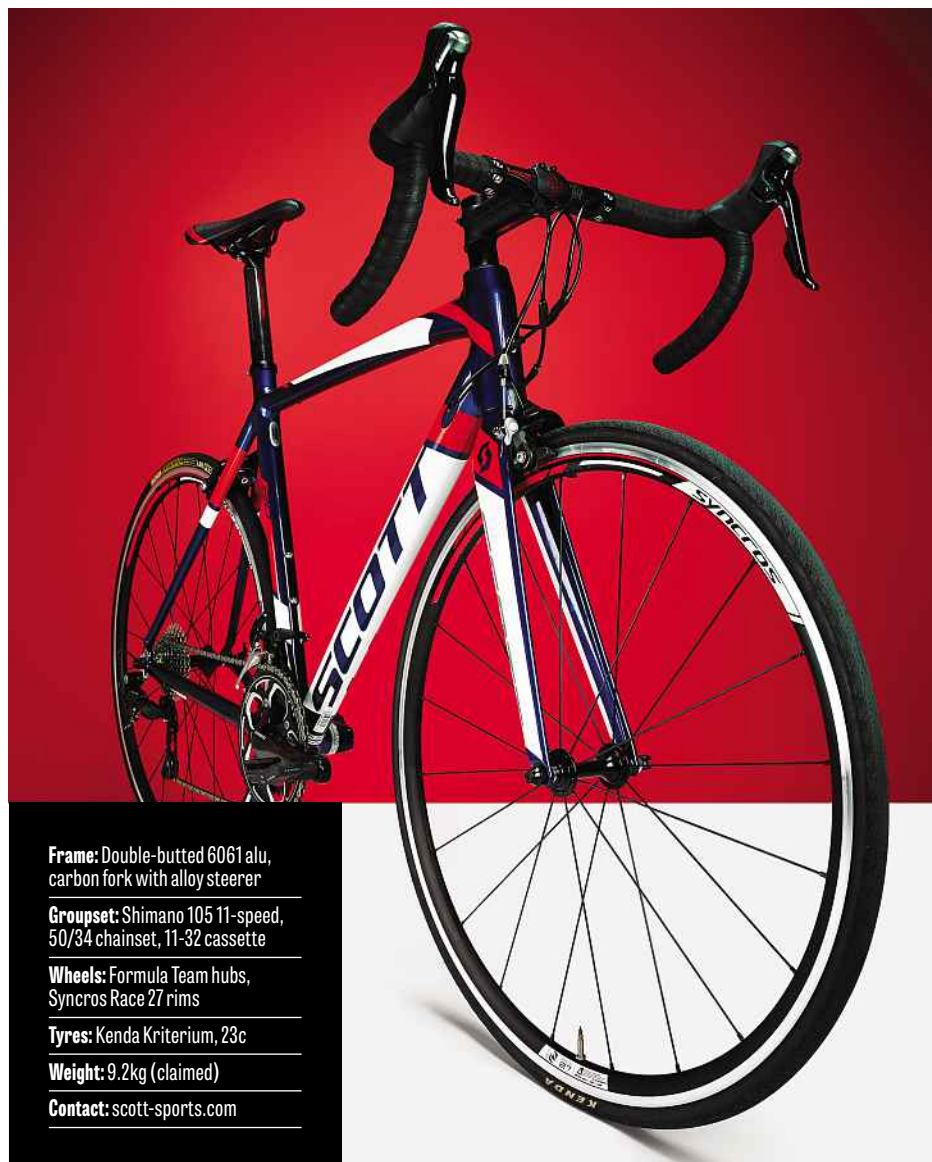
### PROS

Shimano 105; quick and comfortable ride

### CONS

A little heavy; tyres are pretty average

OVERALL  
9/10



**Frame:** Double-butted 6061 alu, carbon fork with alloy steerer

**Groupset:** Shimano 105 11-speed, 50/34 chainset, 11-32 cassette

**Wheels:** Formula Team hubs, Syncros Race 27 rims

**Tyres:** Kenda Kriterium, 23c

**Weight:** 9.2kg (claimed)

**Contact:** scott-sports.com





## STREETWISE LIGHTS

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# SLIM SHADY

Eight pairs of light-reactive sunnies to keep you looking cool in all conditions



**1** Tifosi Pro Escalate £130, [zyro.co.uk](http://zyro.co.uk) **2** Salice 011 CRX £75, [salice.co.uk](http://salice.co.uk) **3** Endura Pacu £80, [endurasport.com](http://endurasport.com) **4** Lazer Magneto M1S £110, [madison.co.uk](http://madison.co.uk) **5** Lazer Solid State £70, [madison.co.uk](http://madison.co.uk) **6** JetBlack Svelto £55, [chickencycles.co.uk](http://chickencycles.co.uk) **7** Briko Cerberus £70, [chickencycles.co.uk](http://chickencycles.co.uk) **8** Oakley Jawbreaker £235, [oakley.com](http://oakley.com)

**38secs** TIME LOST BY GERAINT THOMAS ON STAGE 16 OF THE TOUR AFTER LOSING HIS TRADEMARK WHITE OAKLEYS (THE CRASH PROBABLY DIDN'T HELP EITHER).



# TREK MADONE 2016

What better way to test Trek's latest than to go for a spin in Holland with Jens Voigt?

**PRICE:** from £4,500 **CONTACT:** [trekbikes.com](http://trekbikes.com)

**I**t's funny how these things happen in unison. Is it a case of the big brands conspiring with each other, or is it simply great minds thinking alike? We're inclined towards the latter, and when Trek launched its new Madone in July with fully internal cable routing, unmatched aerodynamics and unparalleled levels of integration, we couldn't help thinking it was coincidence that Specialized had clearly been working to a very similar brief on Mark Cavendish's new Venge.

The truth is that bikes like the new Madone were the obvious next step for bike designers. Breaking new ground requires starting with a clean slate, and that requires the kind of serious engineering outlay that only the biggest players in the industry can afford.

The new Madone is a beauty. It's sleek and clean like a German car designer's daydream doodle, with none of the ugly reality of a 'normal' bike such as bulging cables or exposed allen key bolts. With clean lines comes aerodynamics and just by redesigning the bar and stem to a one-piece unit with fully hidden cables, Trek reckons a saving of 34g of drag over the previous incarnation of Bontrager aero road bars. According to Jens Voigt, the recently retired German who rode for the Trek Factory Racing team, that's the sort of saving

## Trek will offer the Madone in three fits including a women-specific option

you can feel. Elsewhere, the brakes have been designed around a proprietary fitting using a centre-pull cable that runs through the head tube fairing on the front, and pops out through the seat tube at the rear.

As you would expect, all the main tubes of the frame are shaped for maximal aero advantage. To make sure the whole Madone package is aerodynamic, Trek's engineers tested the bike in the wind tunnel with water bottles to position them in the most efficient place, working together to minimise disruption of the airflow as it passes across the frame. The final really clever aerodynamic touch that impresses us is the way gear cable adjustments or the Di2 battery and junction box are housed within the down tube control centre, making for easy charging and gear cable adjustments on the move.

Away from the purely aerodynamic, Trek has made a real effort to make its ultimate race bike not just fast, but comfortable too – because a bike that's not comfortable isn't going to be as fast after five hours in the saddle. Trek has redesigned its IsoSpeed decoupler (as featured in the Domane) for the Madone, using a tube within a tube – so what you see externally is an aero shell, and inside

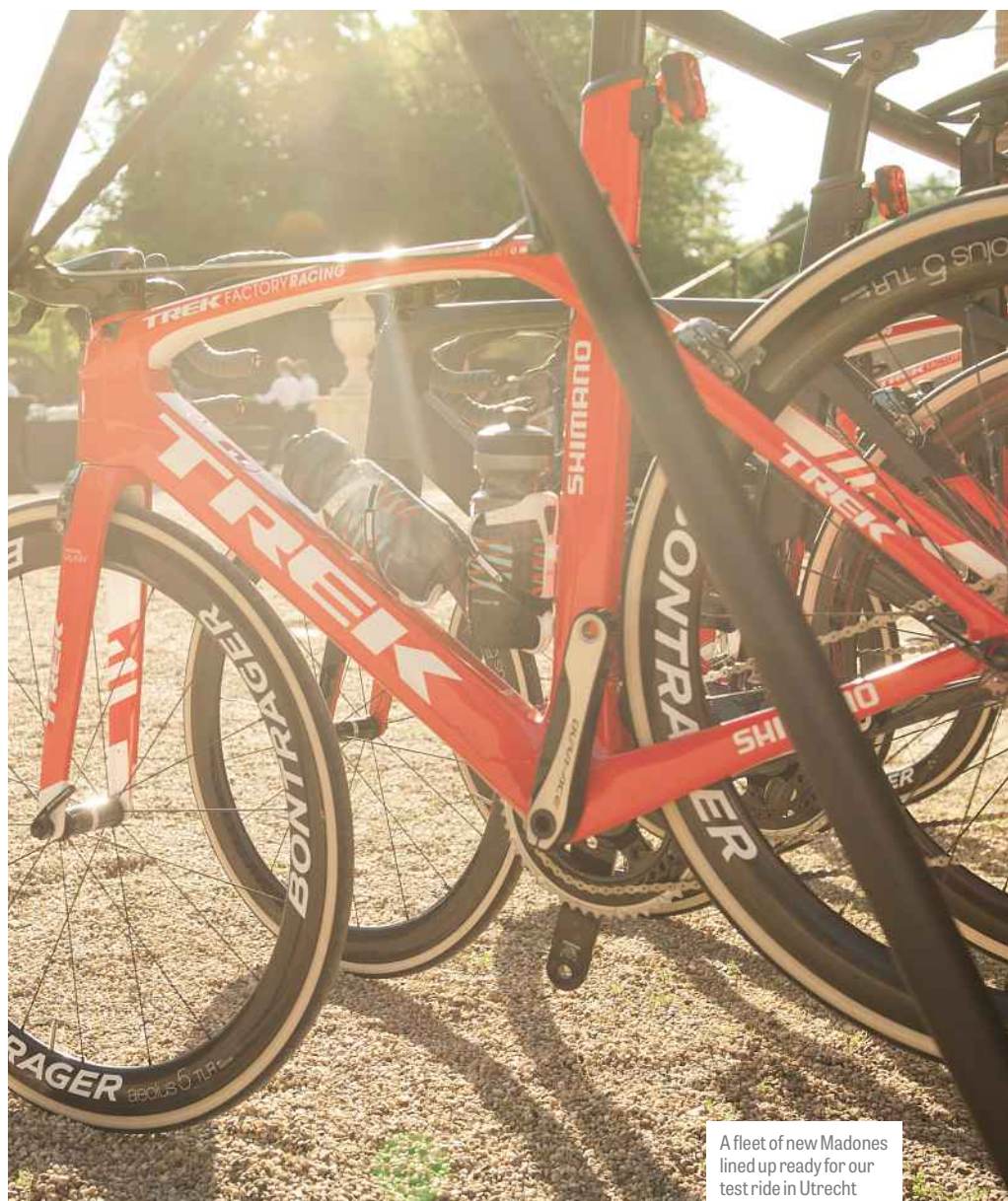
that is a load-bearing carbon seat tube that flexes to keep the rider comfortable. Clever.

We were lucky to be invited to Trek's official Madone launch the week before the Tour de France began in Holland. To get a sizeable first impression of the new platform, we were taken on a 96km ride southwest from Utrecht, led by Voigt himself, making the most of the few short hills in the area. Heading out on flat, smooth bike paths in an orderly peloton, the bike felt fast and comfortable – that could either be testament to its peerless American engineering or the incredible Dutch cycling infrastructure.

On rougher roads and over speed bumps, the presence of the IsoSpeed decoupler is noticeable, allowing as much as 20mm of saddle deflection if the impact is high enough.

Whether on the hoods, in the drops or sprinting out of the saddle, the Madone feels efficient, accelerating quickly and keeping its speed like a perpetual motion machine.

When Jensie decided to drop the anchor mid-ride, having missed a turning, a rapidly concertina-ing bunch of riders all managed to stay upright, largely due to the impressive performance of Trek's brake design, and the efficient cork pads on carbon rims.



A fleet of new Madones lined up ready for our test ride in Utrecht

We'd be interested to see how well these brakes work in the wet, though.

The bars are another impressive feature, and that aerodynamic flat top section is both comfortable to hold and notably compliant.

That the top of the range bikes we rode in Holland performed excellently came as no surprise, but looking down the range, one thing we're really pleased to see is that Trek will be offering the Madone in three fits including a women-specific option. That's big news as up to now, women-specific aero bikes have been very hard to come by. And a slightly more upright version will be a huge selling point for sportive riders looking for pro performance without the lower back pain.

Complete bikes start at £4,500, going up to £9,000 for the Madone 9.9 women's model and £9,750 for the Madone Race Shop Limited H1. Hey, who said the future would be cheap?

### BikesEtc Rating

#### PROS

Three fits including one for women

#### CONS

Proprietary parts limit compatibility

OVERALL

9/10





The decoupled seatpost is based on the one used in the Domane, Trek's endurance bike

Articulated fairings improve aerodynamics while also allowing tight cornering



The Ballista helmet and kit are the ideal choice for test riding the new Madone

## BONTRAGER BALLISTA KIT

Cool-looking kit just went sub-zero

**PRICE:** Bontrager Ballista jersey (£120) shorts (£140) & helmet (£160)  
**CONTACT:** [bontrager.com](http://bontrager.com)

**A**t the same time as launching the new Madone, Trek's parts and accessories brand Bontrager officially unveiled its latest Vader-esque aero road helmet, the Ballista.

Eagle-eyed pro cycling fans will have seen this lid on the heads of the Trek Factory Racing team earlier in the season, and at the Tour, but this was our first chance to try it. Initial impressions were good, chiefly because instead of requiring a size large as usual, we could squeeze into a svelte, low-profile medium – there'll be no more *Mario Kart*-style mushroom heads for us.

There's a lot more to the Ballista than a flattering profile though, and the real selling points are aerodynamics and airflow.

The Ballista has been tested in the same low-speed wind tunnel in California that's used for a huge amount of bike industry testing, and results there show it to be

faster than the competition – such as the Specialized S-Works Evade or the Giro Synthe. With three central ventilation channels in the front channelling air over the scalp and out through a broad spread of exhaust ports, air flow and cooling are impressive too.

Combined with the new aero kit and new bike, we certainly felt fast in the Ballista, and despite the pace and the mercury nudging 35°C, we didn't overheat either. If you're in the market for a versatile aero lid, the bug-like Ballista looks to us like the one to beat.

Also presented at the launch was the new Bontrager Ballista aero jersey and shorts. We've been impressed with Bontrager's clothing recently, with the Trek Factory Racing outfit winning Best in Test in our round-up of pro kit last issue. Like that, the Ballista kit has a great cut, and the chamois is excellent. What's more, the design is pretty cool too, with no OTT logos. Good stuff. 🚴







# THE OFF-ROAD LESS TRAVELLED

Leave those marginal gains at home, pick up a map and make the most of your local rights of way, advises Andy Waterman

**I** know where we are – I've ridden down here before,' says George, one of our test riders, as the road we're following ends in a farmyard. 'I had to turn round and go back.'

We're testing adventure road (aka gravel) bikes, and there will be no going back if I can help it. Bikes like this are how road cycling began, but as roads got smoother, bikes developed to go faster and in the process became less versatile.

Versatility is the calling card of these bikes. On the other side of the farmyard is a byway, an unpaved track (shown as a pink-crossed line on an OS map), and that's where we're headed...

## 35mm

WIDTH OF TYRES  
USED BY RIDERS  
AT THE 1903  
TOUR DE FRANCE

Our group falls in line as tarmac turns to dirt and, despite staying at the same speed, the proximity of the trees that form a tunnel over the trail makes it feel like we've accelerated to warp speed. The bikes bounce around beneath us, skating over the loose stony surface, the gyroscopic miracle

## Dead ends become magical gateways to an undiscovered route network

of the bicycle somehow keeping us mostly upright regardless.

Less than a mile later, we're back on the tarmac, grinning and sharing stories of derring-dos and don'ts, when George admits he's had a bit of a crash – the fresh earth lodged in his rear quick-release validates the claim. He's laughing though.

'It's quite fun crashing off road,' he gasps. 'I'm just glad nobody got a photo of it!'

We get back to London with 95km under our belts. Riding on tarmac and dirt, with tyre widths from 33 to 40mm, we've averaged around 24kmh – only

a little bit slower than a normal road ride. What's more, we've managed to stick to the nicest, safest roads, bypassing the usual vehicular conflict you come to expect in the southeast of England. When dead ends become magical gateways to a hitherto undiscovered route network, it's amazing

how much of the surrounding countryside opens up to you.

With nettle-stung legs, we arrive back in the office convinced we've been doing road riding all wrong. Marginal gains have their place at the head of the professional peloton, but for riders looking to boost their enjoyment of limited riding time, a pair of wider tyres, an OS map and a sense of adventure are the most effective gains you can make.

Road riding doesn't have to be seriousness and suffering, it can be fun – start by redefining what you think of as a 'road'. ☘

## THREE TYRES FOR MIXED TERRAIN MILE MUNCHING



### THIN PANARACER GRAVEL KING

PRICE: £30

DETAILS: 28mm, 126tpi

CONTACT: [zyro.co.uk](http://zyro.co.uk)

At 28mm the Gravel Kings will be able to squeeze onto a lot of modern road bikes with standard rim brakes. Their robust construction keeps punctures at bay, and despite their slick appearance you'll be amazed at how grippy they are.



### CHUBBY CLEMENT X'PLOR M50

PRICE: £35

DETAILS: 32mm, 60tpi

CONTACT: [2pure.co.uk](http://2pure.co.uk)

More width means more volume and grip and less chance of a pinch flat – a problem when you head off-road with tubed tyres. With a fast-rolling centre and aggressive shoulder tread, the X'Plors make a great mixed-terrain tyres for adventure bikes.



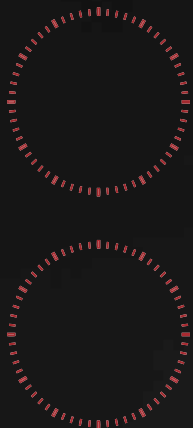
### FAT CHALLENGE GRAVEL GRINDER

PRICE: £35

DETAILS: 38mm, 120tpi

CONTACT: [paligap.cc](http://paligap.cc)

Once you go fat, you'll never go back. Fast rolling thanks to the smooth centre tread, comfortable thanks to the huge volume, and grippy when things get ugly due to the pronounced shoulders, the Gravel Grinder is the monarch of mixed terrain.



## S-WORKS VENGE

It took more than four years to create the S-Works Venge, and the result is the fastest bike we've ever made. Getting here took dedicating ourselves to redefining the shape, structure, and theory of speed, which led us to building our own Win Tunnel during its development. We exhausted engineers and aerodynamicists as we tested hundreds of prototypes. The payoff, however, is that every element of the bike is painstakingly constructed to be faster. The zero-drag brakes, the AeroFly ViAS cockpit, and the Rider-First Engineered™ frameset—they all work in harmony to ensure that the Venge is not only the fastest road bike in the world, but also the best handling, best feeling bike on the road.

[specialized.com/5minutes](https://specialized.com/5minutes)

120 seconds over 40km





# La Dolce Vita

We tested three of Italy's finest two-wheeled exports on a cake and coffee-fuelled ride in the placid countryside of the East Midlands

WORDS **MARC ABBOTT** PHOTOGRAPHY **RICHARD BAYBUTT**

## ON TEST



**PINARELLO  
MARVEL T2**  
**£2,650**



**BIANCHI  
OLTRE XR1**  
**£3,100**



**COLNAGO  
CLD**  
**£2,800**







Rutland's short, punchy climbs proved the perfect testing ground for our three bikes







**T**hese bikes are all a long way from home. Spirited from their balmy Italian motherland for a sun-baked ride in rural Rutland, we wanted to see how each of these carbon models performed on the average British café ride.

Three hours in the saddle with an appropriately indulgent coffee and cake stop is the Holy Grail of weekend riding, and with an 85km test route that incorporated just shy of 700 metres of climbing, we were assured of fresh legs and espresso-fuelled speed. While two of these bikes were similar, one couldn't be more different.

Bianchi's Athena-equipped Oltre XR1 and Pinarello's 105-equipped Marvel T2 share their frame shapes with the makers' high-end racers – the XR2 from the Lotto Jumbo pro team, and the Dogma that has become synonymous with Tour glory thanks to Team Sky.

However, Colnago's female friendly CLD is a different kettle of fish altogether – from its short top tube and women-specific geometry to its sleek finishing kit and white rims.

Were any of these carbon thoroughbreds an Italian stallion? Was one a total mare? Here's how it all played out...



With trickle-down DNA from high-end models, these bikes flew along



Left to right: Pinarello Marvel T2, Colnago CLD and Bianchi Oltre XR1

## The power of heritage

Italians are proud of many things, not least their peerless cycling history. In fact, these three brands – Pinarello, Colnago and Bianchi – have over 255 years of bike-building expertise between them.

Edoardo Bianchi opened his Milanese bike-making business way back in 1885. The rest, as they say, is history. Notable victories from Marco Pantani, among others, put their celeste-coloured bikes firmly in the spotlight. Bianchi also initially produced trucks, motorcycles and

cars, before selling its Autobianchi business to Fiat in 1969 – two years after its motorcycle business went to Italian vehicle super-firm Piaggio (the owners of Vespa).

Fellow countryman Ernesto Colnago started building bike frames in 1952, when his racing career was cut short due to injury.

Colnago was chief mechanic for Merckx's Molteni team in the 1960s, but, more recently, his company has supplied bikes to pro teams Rabobank, Europcar and CSF

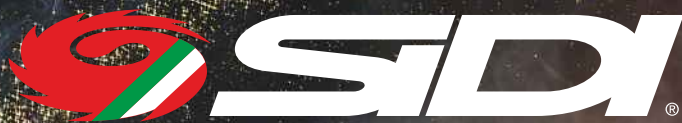
Bardiani. Women's pro team Wiggle Honda rides the Colnago C59.

Also in 1952, the same year that Colnago set up shop (and 67 years after Bianchi began production), Giovanni Pinarello starting making his own bikes – already five years into a professional racing career.

Pinarello died last year, but his Dogma 2, Dogma 65.1 and F8 bikes helped Sir Bradley Wiggins (2012) and Chris Froome (2013 & 2015) claim three breathtaking Tour de France wins in four years.







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# PINARELLO Marvel T2

Well-matched components excel in the right combination...



**P**inarello's Marvel is a 'Dogma for the masses'. Our 105-equipped model is heavier than its costlier sibling, but its asymmetric frame is derived from the Tour-winning range-topper. The head tube is fractionally longer on the Marvel, while the reach and stack are shortened – but beyond that, what you're getting is identical geometry in a different carbon lay-up.

We can forgive its 8.39kg weight for the way in which the Marvel's components gel so smoothly. They're all Shimano 105, from shifter to rear mech, and this approach makes for a mega silky-shifting, easy-to-operate road bike.

Maybe one thing that could improve the Marvel would be a different wheelset that backs up its race-proven geometry. Fulcrum's sturdy Racing Sport wheels, with durable 25c Zaffiro Pro rubber, are a little sluggish to get up to speed, and took more energy to propel uphill once we hauled ourselves from the lovely Most Bobcat saddle to sprint for a summit. That said, the compact 105 chainset proved a bonus in this situation.







### BEST POINTS

Shimano's 105 groupset performs as well as Dura-Ace in this package, riding comfort makes all-dayers easy, 25c tyres fill you with confidence and the price isn't too steep either.



**PRICE:** £2,650

**FRAME:** Toray asymmetric carbon-fibre, Onda carbon fork

**GROUPSET:** Shimano 105 11-speed, 50/34 chainset, 11-28 cassette

**BRAKES:** Shimano 105

**BARs:** Most Zylon aluminium

**STEM:** Most Tiger alloy/carbon

**SEATPOST:** Most Tail alloy/carbon

**SADDLE:** Most Bobcat

**WHEELS:** Fulcrum Racing Sport

**TYRES:** Vittoria Zaffiro Pro, 25c

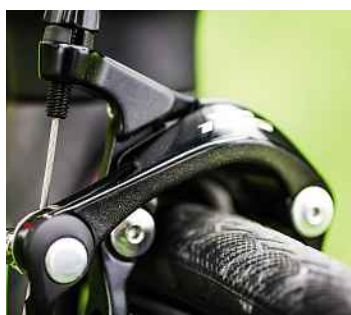
**WEIGHT:** 8.39kg (size 51)

**SHOP:** yellow-limited.com



### WORST POINTS

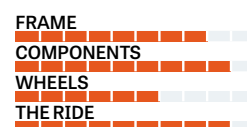
A lower-rung wheelset saps a little vim from an otherwise spectacular bike set-up, and conspires to make the Marvel, in this particular iteration at least, significantly heavier than would be considered ideal.



### SUMMARY

We'd say that if you're honest about what you need from a bike, the Marvel will acquit itself as well as a Dogma 75% of the time. It won't win many sprints or propel you to the top of Mont Ventoux faster than your mate's waif-like Pro Team replica – but you could buy three of these for the same money. 🚲

### Rating



OVERALL  
**8.6**  
10





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tubeless clincher...

...ready for  
any ride

**DEVAURA**

All the benefits of a modern 24mm wide rim -  
use wider tyres, reduced rolling resistance and  
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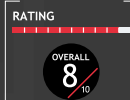


24mm width



31mm height

- Stealth all black disc brake or CNC rim brake options
- Tubeless-ready clincher, supplied pre-taped
- Black double butted stainless steel spokes, alloy nipples
- Halo 6D hubs, 30 click engagement, sealed bearings
- Disc 1804g pair, Rim brake 1625g pair



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Photo: Nick Webster



# BIANCHI Oltre XR1

Will this Bianchi be able to beat both its cheaper, sporty rivals?



**T**wo things about the XR1 make us smile. Firstly, the Campagnolo Athena groupset is a joy of sweet shifts and solid braking, full of feel and not lacking in stopping power. Secondly, the frameset is the same as you'll find on Bianchi's top-end race models, right down to the routing for the firm's EPS electronic shifters. This makes the bike pro-level machinery, to a point.

As with the Pinarello, the XR1 is let down slightly by its wheelset. Fulcrum's training wheels bring it in at a tempting price, but we would have accepted a trade-off in components for a quicker-spinning set – even something slightly higher up the range like a Racing 3 or Campag Zonda.

That frame almost makes you forgive everything, though. It's stiff enough around the bottom bracket for sprints on the flat, and light enough to make mincemeat of short climbs. Being the only bike in this test to sport the now de rigueur mid-compact 52/36 chainset gave it a small advantage getting up to speed on rapid descents, too.



The Bianchi was light enough to make mincemeat of hills





### BEST POINTS

Ergonomic hoods and quality engagement from the Athena groupset, a stiff front end and internal cabling. The frame will take anything you throw at it, and it's also race-ready straight out of the box.



### WORST POINTS

More than the usual amount of vibes from the handlebars, and some road vibrations make it through to the saddle, too. Would benefit greatly from a wheel upgrade, but admittedly, that would bump the price up.



**PRICE:** £3,100

**FRAME:** Oltre XR1 carbon-fibre, carbon fork

**GROUPSET:** Campagnolo Athena 11-speed, 52/36 chainset, 11-27 cassette

**BRAKES:** Campagnolo Athena

**BARS:** Reparto Corse alloy

**STEM:** Reparto Corse alloy

**SEATPOST:** Oltre carbon aero

**SADDLE:** San Marco Era Dynamic Open

**WHEELS:** Fulcrum Racing 5

**TYRES:** Vittoria Zaffiro Pro Slick, 23c

**WEIGHT:** 7.35kg (size 53)

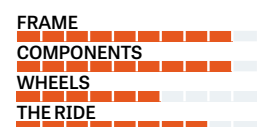
**CONTACT:** bianchi.com



### SUMMARY

A race-proven frameset allied to quality Campag componentry, but let down by its wheels. Buying this bike, selling the wheels and putting the cash towards some rapid hoops (like Campag Zondas) would pay *serious* dividends. Has the potential to destroy most things on the road with glee. 🚴

### Rating



OVERALL  
**8.4**  
10



*When it comes to road helmets, I accept no compromises. The constant urge for aerodynamic helmets makes riders forget they need ventilation for optimum performance. This is where the Icarus comes in; compact enough to be aero and an open design for perfect ventilation. And on top of that? It looks great!*

FOR THE FULL STORY, CHECK:  
BBBCYCLING.COM/BIKE-WEAR/HELMETS/BHE-05

# WHERE AERODYNAMICS AND THERMODYNAMICS COME TOGETHER.

Thibaut Pinot  
Team FDJ



**HELMETS**  
ICARUS / BHE-05







# COLNAGO CLD

Female-specific geometry takes this ride to a whole new level



**C**olnago's CLD is designed to fit women riders better than men with a shorter top tube than the standard bike geometry. Add to this the fact that its spec includes narrower handlebars and a shorter stem, and what you get is a bike that should suit someone with a shorter torso, who makes up in leg strength what they lack in arm length.

It takes a fantastic bike to make a three-hour ride comfortable throughout, and the CLD managed this with ease. Colnago claim even the carbon lay-up is suited to a female rider. We're not entirely sure what Colnago is trying to say by this, but the bottom line is that the bike transferred almost no vibration to our arms or posterior, and a great deal of power to the ground.

The female-specific Selle Italia Lady saddle was also really comfortable, with significantly more padding than would normally be found.

Our test rider didn't adore the weighty wheels or their colour, but the package of lightweight and dashing Italian good looks made the CLD a hit.



Colnago's clever geometry made for a comfortable day spent in the saddle







### BEST POINTS

Very forgiving frameset for a long day's riding, allied to sharp brakes, slick shifting and a very welcome female-specific saddle that took care of any road buzz the frame hadn't isolated.



### WORST POINTS

The steering tube seems quite tall which means the rider is forced to sit in a more upright position on the bike. Also, the wheelset isn't particularly light, and the all-white rims won't be to everyone's taste.



**PRICE:** £2,800

**FRAME:** CLD carbon-fibre, carbon fork

**GROUPSET:** Shimano Ultegra 11-speed, 50/34 chainset, 11-28 Shimano 105 cassette

**BRAKES:** Colnago X-Brake 1

**BARS:** Deda RHM01

**STEM:** Deda Zero One

**SEATPOST:** CLD alloy

**SADDLE:** Selle Italia X1 Lady

**WHEELS:** Colnago Artemis


**TYRES:** Continental Ultra Sport II, 23c

**WEIGHT:** 8.35kg (size 46)

**CONTACT:** [windwave.co.uk](http://windwave.co.uk)



### SUMMARY

While the other two bikes in this test are race bikes with low-spec wheelsets, the Colnago offers something a little different. If a season of sportives or long weekend café rides are on the agenda, then this bike is well worth a look for its winning combination of comfort and killer spec. 

### Rating

FRAME	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
COMPONENTS	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
WHEELS	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
THE RIDE	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

OVERALL  
**8.4**  
10



# MOVE MOUNTAINS, RIDE CUBE



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CLIMB ON BIKES - HEREFORD  
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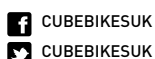
LEISURE LAKES - CHELTENHAM  
[LEISURELAKESBIKES.COM](http://LEISURELAKESBIKES.COM)

SQUARE WHEELS - STRATHPEFFER  
[SQUAREWHEELS.BIZ](http://SQUAREWHEELS.BIZ)



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# The final verdict

We don't want to be dogmatic but the Pinarello really is a marvellous bike



All three of these bikes have slightly different purposes, but are unified by their country of origin. Bianchi's Oltre XR1 is an out-and-out race bike frame hung with components designed to make it more affordable to the rank and file cyclist. Pinarello's Marvel apes the geometry of its pro-level big brother, but is built down to a price. And Colnago's female-specific CLD is a long-distance bike with comfort in mind. What it boils down to is a dissection of how each bike performs in isolation, and for our money there's a clear winner.

The Pinarello is a treat to ride. It's rare that a bike hangs together so well as a complete package. The frame is stiff, but comfortable over distance; the 105 groupset is a dream; and the finishing kit is of a very high standard. Like the Bianchi, it's let down by a basic wheelset, but that's the worst we can level at it.

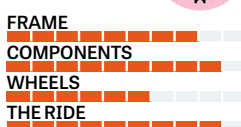
The Oltre XR1 would make a cutting-edge race bike, but you'd have to swap the wheels first. Before you know it, you'll have no change from four grand. The Colnago is a triumph of specific geometry for the female rider, responsive enough to challenge the other two in most circumstances.

But the Pinarello Marvel T2 is the package that holds together best under close scrutiny. Who needs a Dogma, eh? 🚲

## PINARELLO MARVEL T2 £2,650



### Rating



OVERALL  
**8.6**  
10

## BIANCHI OLTRE XR1 £3,100



OVERALL  
**8.4**  
10

## COLNAGO CLD £2,800



OVERALL  
**8.4**  
10





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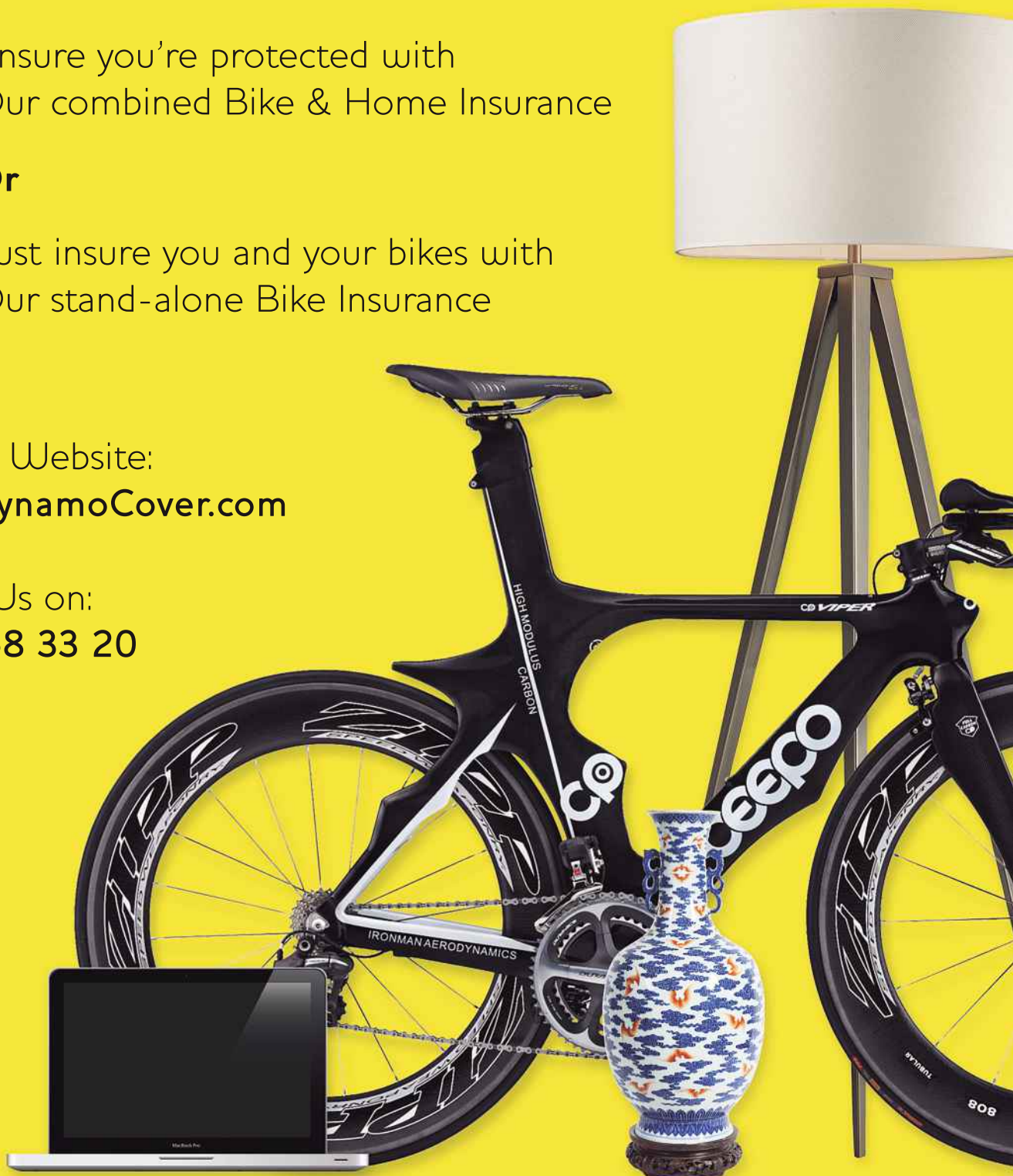
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# MILLAR'S TALE

Recently retired Brit cyclist David Millar opens up about his doping ban, redemption, and why he's enjoying being a cycling fan again

WORDS **MARK BAILEY**

PHOTOGRAPHY **ALEX WHITEHEAD**

**D**avid Millar runs a hand through the dark curls tumbling over his forehead and confesses with wry understatement that he has experienced 'a very interesting life'. The enigmatic British rider retired last winter after 17 years as a professional cyclist during which his fortunes swung wildly from historic Tour de France success to a ban for drug use and a final public atonement. Through the many peaks and troughs of his professional life, the Scotsman always seemed different to his peers. Stylish, articulate and opinionated, Millar combined a bohemian spirit of nonconformity and rebellion with an aristocratic elegance on the bike – pedalling with a style and grace which French cyclists admiringly refer to as *souplesse*. Yet in races, he appeared to be fuelled by a ferocity and ambition that evoked the courage of the farm labourers and adventurers who raced so unflaggingly in the earliest editions of the Tour de France. Genteel yet gutsy, the dashing Scotsman was as hard to pin down as he was to race against.

Born in Malta to Scottish parents, Millar enjoyed an itinerant childhood in Scotland, England and Hong Kong, before forging a path into the world of professional cycling through the French amateur ➔





**'I LIKED THE  
FACT THAT  
CYCLING WAS  
A LITTLE ON  
THE MAD SIDE'**





racing scene. Unlike modern riders, Millar succeeded in an era when cycling remained a niche sport in Britain and financial support and training help were almost nonexistent.

During his career, Millar won four individual stages of the Tour de France, five stages of the Vuelta a España and one stage of the Giro d'Italia. He became the only British rider to wear every coloured jersey at the Tour de France (yellow for the general classification, green for the points classification, polka-dot for the climbers, and white for the best young rider) and was the first British cyclist to pull on the leader's jersey in all three Grand Tours.

However, as an impressionable and disillusioned young rider, Millar was sucked into the maelstrom of performance-enhancing drugs that pervaded cycling during his era, and he was banned from racing between 2004 and 2006. After a period of self-doubt and regret, he returned to professional cycling and went on to achieve yet more success as a clean rider, becoming a vocal anti-doping campaigner in the process.

## COUNTRY LIFE

Today, Millar, 38, lives with his wife Nicole and sons Archibald and Harvey in a farmhouse close to the cycling mecca of Girona in Catalonia. It has been more than six months since his retirement. How does he reflect on his career? 'You can't change anything about the past. But, of course, I would be perfectly happy to start again today as a 19-year-old coming through the British Cycling system,' he says. 'It would have opened up so many more doors – with the [British Cycling] academy system and Team Sky and I would have enjoyed a very different life and missed out on the doping era. But at the same time, I've had a very interesting life and I am quite thankful of that. I think I've had more experiences than most people. The truth is that I got into cycling because I liked the fact it was a little bit mad – having to go off to France as a teenager and chase your dream – and because it's such an interesting world to be in.'

Tall and lean at 6ft 4in, Millar admits he hasn't been on his bike much since retiring but he has enjoyed a new sense of freedom and fun after years of strict training. He enjoyed taking part in the Maserati Tour de Yorkshire Ride sportive – for which he's an

# 'CYCLING WAS A JOB. NOW I RIDE BECAUSE I WANT TO'

ambassador – with his father Gordon in May. A week later he announced on Twitter that he had completed another sportive, enduring five punctures, but happily finishing the ride with a cold beer. Freed from the shackles of team sponsorship, he's also enjoying the chance to sample new kit and is currently riding a sleek black Factor bike.

'It's nice to look forward to a ride and just enjoy cycling,' he says. 'Before now, it's always been a part of my job. Now when I ride, it's because I want to. I don't have to worry about hitting numbers in training. I can have a chat and enjoy it. It's the opposite of what I used to do. I'm a bit more "fair weather" now, too.'

## CITY RACER

This renewed passion for the simple pleasures of cycling takes Millar back to his earliest childhood affection for the sport. He first raced BMX bikes and can remember riding a Raleigh Super Tuff Burner. At the age of 13, he moved to Hong Kong with his father – an airline pilot – after his parents separated, and soon discovered the joy of road cycling.

'As a kid, I went through all the genres: BMX, mountain bikes, time trialling, road cycling... everything,' he says. 'The reason I got into road cycling was because I wanted to race. I had been watching the Tour de France and I fell in love with it.'

Millar would cycle at 6.30am before the roads of Hong Kong became choked with traffic. He also enjoyed exploring Hong Kong's country parks. 'It probably set me up nicely for riding in the peloton as the roads in Hong Kong are pretty hectic. I liked riding in the country parks in the early morning, but

Riding on Ilkley Moor – with a hat of sorts – on a publicity ride for luxury car marque Maserati

# HERO TO ZERO TO HERO AGAIN

1997

Signs as a pro for French team Cofidis.

2000

Marks his debut at the Tour de France by winning the opening stage, a 16.5km individual time trial, becoming only the fourth British rider to wear the yellow jersey.

2001

Wins the opening time trial of the Vuelta a España to take the leader's red jersey. Loses it at the end of stage three but goes on to win stage 6.

2003

Wins the individual time trial at the **UCI Road World Championships** in Canada, but is later stripped of his title after admitting EPO use.

2006

After serving a two-year suspension, returns to cycling with the Spanish Saunier-Dual team. Wins the individual pursuit at the British National Track Championships.

Photography: Alamy





sometimes I would ride right into the heart of Mong Kok which is pretty wild. Hong Kong is hilly too, so it's a great place to ride.'

Millar was a keen student of his sport. He says he 'saturated himself' with cycling books and magazines and spent many hours trying to ape the smooth pedalling style of Italy's 1988 world road race champion Maurizio Fondriest and Spain's five-time Tour de France winner Miguel Indurain. From an early age, he showed an innate talent for time trialling – a skill which would drive his future success in mid-race breakaways and late attacks as well as time trials. He competed in 10-mile time trials in the UK whenever he returned during the school holidays. 'I think physically and genetically I was quite good at that, but there is also the technical side and my positioning on the bike too,' he explains. 'I spent a lot of time working on that. I remember when I raced in the national championships as a junior I was the only guy there on a road bike with clip-on bars. All the others had all the best time trial kit. I think it's a shame kids now use special time trial bikes as it means a lot of other kids can't easily get into the sport if they want to.'

## TOUR DREAMS

After completing his A-levels, Millar moved back to England to live with his mother, Avril, in Maidenhead. But he was determined to pursue a career in cycling and moved to France to race for the St-Quentin amateur team. Today, young British cyclists are able to learn their trade with the British Cycling academy, typically honing their talents on the track before joining professional road teams like Team Sky. But in Millar's era, riders took the old-school route to the top, racing in amateur ranks in Europe, hoping a pro team would eventually offer them a contract.

'St-Quentin was good for me because that kind of immersion meant I had to learn French and train and race hard,' he recalls. 'I had to be at my best, so I was deeply focused and driven about what I wanted to do. I could have no excuses over there.' It was a courageous move for a young teenager, but Millar says his passion for cycling and cosmopolitan childhood made the move simpler. 'I was an expat, so moving abroad was ➤



**2007**

Does the double at the British National Road Championships, winning both the road race as well as the individual time trial.

**2008**

Joins Jonathan Vaughters' vociferously anti-doping Garmin-Slipstream team as rider and part owner. The newly reinvigorated team wins the opening stage team time trial at the Giro d'Italia.

**2010**

Takes his historic fifth stage win at the Vuelta, winning the final individual time trial.

**2011**

Becomes the first British rider to wear the leader's jersey in all three Grand Tours, after taking the overall lead in the Giro d'Italia. Places second on stage three and wins the final stage, an individual time trial.

**2012**

Takes his fourth **Tour de France stage win** and last major win as a pro when he triumphs as part of a four-man breakaway on stage 12.





fine. When I was in France, cycling was my whole life. It was me against the world.'

After winning eight races with St-Quentin, Millar was offered a professional contract by five different teams in 1997. He signed with French squad Cofidis under team boss Cyrille Guimard, a former pro who had won seven stages of the Tour de France. Millar competed in the Tour de France for the first time in 2000 and won the first stage – a 16.5km time trial at Futuroscope (a theme park in Poitiers) to claim the yellow jersey, which he had first seen on television back in Hong Kong.

'It felt pretty amazing, but it is so hard to describe,' says Millar. 'The yellow jersey of the Tour de France is the reason I got into cycling – so to wear it was surreal. But I never expected to win it on the first day of my first Tour de France. It's an iconic jersey, so you get natural respect from the bunch and you see people pointing at you at the side of the road.'

More success followed over the next three years as Millar won additional stages of the Tour in 2002 and 2003, stages of the Vuelta in 2001 and 2003, and the individual time trial at the UCI Road World Championships in Canada in 2003. At times hedonistic and rebellious, Millar enjoyed the trappings of his success, partying in VIP clubs near his home in Biarritz and buying a grand house with a cinema room and wine cellar. He celebrated his World Championships win by flying to the Bellagio hotel and casino in Las Vegas.

## THE FALL AND RISE

However, Millar had been hiding a dark secret. Competing in an era in which drug abuse was rife, he had descended into the murky world of doping, a traumatic and dangerous experience which he described in detail in his 2011 autobiography *Racing Through The Dark*. Having originally decided that he would race clean, Millar was disillusioned by the sight of doped-up rivals winning races. Over time, he convinced himself of the need to take testosterone, cortisone and erythropoietin (EPO).

On 21 June 2004, Millar was dining in a restaurant in Biarritz when he was approached by three policemen who had been monitoring him. After searching his apartment, they found empty phials of Eprex – a brand of EPO – and two used syringes. Millar spent the night in a cell and after 47 hours in custody, he finally confessed.

Millar was fired by Cofidis and suspended



Millar leads a ride over Ilkley Moor ahead of the Tour of Yorkshire in March this year; approaching the top of the climb out of Ilkley (above left) and ascending Haworth's cobbled high street (below)



for two years by British Cycling. He lost his home and spent months in an alcohol-soaked gloom. 'It was the same shit every day – I got drunk a lot,' he says. 'But I was helped by my family and friends, by Dave Brailsford [then head of British Cycling] and by the British Cycling team who were up in Manchester.'

Devastated and repentant, Millar moved to Hayfield in the Peak District to be close to the Manchester velodrome and the headquarters of British Cycling. He began training and rediscovering his fitness. In 2006, at the end of his suspension, he returned to the Tour de France with the Spanish team Saunier Duval-

Prodir. The following year he moved to the Garmin-Slipstream team (now Cannondale-Garmin), whose boss Jonathan Vaughters advocated a staunch anti-doping ethos.

Millar became a passionate anti-doping campaigner and an athlete committee member for the World Anti-Doping Agency. 'No rider gets into cycling to take drugs,' he says. 'Today, nobody will have to go through what I did, which is great. Cycling has had a pretty brutal past with drugs, but it's not like that now.'

In the second half of his career, Millar achieved more success on the road, proving to himself that he could reach the top as a clean rider. In 2006, he won a stage of the Vuelta and the British individual pursuit title on the track. In 2007, he was victorious at the British national championships in both the road race and time trial. In 2009, he won another stage of the Vuelta and in 2011, a stage of the Giro.

His most memorable moment was his victory on stage 12 of the 2012 Tour when he won a cat-and-mouse sprint after a breakaway with three other riders. 'Winning the stage in 2012 meant that my career either side of my doping ban was almost identical,' he says. 'I'm proud to have come back and replicated most of what I had achieved before the ban, but doing so clean. It felt good. It felt like closure.'

Since retiring last winter, Millar has been



# 'CYCLING'S HAD A BRUTAL PAST WITH DRUGS – BUT IT'S NOT LIKE THAT NOW'



busy. He's writing a second book, due in October. Then there's his clothing range with Castelli. 'It's strange doing all the conference calls and working on the production, but I've always been creative, so it's been brilliant fun.'

He's also done a spot of punditry, appearing alongside Chris Boardman and Gary Imlach on ITV4's Tour de France highlights show. 'To the recently retired like Jensie [Voigt] and me, now paid to view from the outside, we suddenly realise why the public view Tour de France riders as superheroes,' he says.

Millar has also been coaching his former team-mate and friend Ryder Hesjedal. The Canadian cyclist won the Giro d'Italia in 2012. 'He's an experienced rider, but sometimes you just need a sounding board,' he explains.

After 17 years of glory, shame, excitement, despair, hope and redemption, Millar's philosophy for the future mirrors his blueprint for battling through a long, hot mountainous day in the Pyrenees.

'There are moments when you think it's all over and you feel like giving up but as you get older, you realise you can make it through,' he says. 'That ability to not throw in the towel comes when you've been in those tough situations before and have got through them. You realise you can survive anything.'

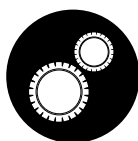
*David Millar is an ambassador for Maserati GB*

## David Millar's top five SPORTIVE TIPS



### CHOOSE THE RIGHT BREAKFAST

For a big training day or a long ride I would have porridge for breakfast, but you also need some fats to burn during the ride and some protein for your muscles, so having some eggs, bread and avocado is a good idea. For a really long day, get some pasta down if you can stomach it.



### USE SMALL GEARS

If you use gears that are too big, you will just get tired. Big gears just make you get bogged down so you lose your rhythm, use too much energy, knacker yourself out or just stop altogether – which is never good. You don't want to do that. It's better to go for smaller gears.



### KEEP YOUR CADENCE HIGH

Aim for a high cadence and you will automatically pedal smoother. It's especially important on a hilly ride as a low cadence will just stress your muscles – which isn't ideal. Try to stick to a cadence of 90rpm or above and you will automatically have a more fluid pedalling style.



### PACE YOURSELF

Whatever sportive you're doing, start with the intention of finishing. It doesn't have to be a competition. Just aim to get from A to B and don't think about anybody's pace but yours. If you're thinking about racing round the course then you're going about it all wrong.



### PRACTISE YOUR FUELLING STRATEGY

When you're out riding, you need to find what works for you – whether it's fruit, energy bars, gels or just sugar cubes. Everybody's different. I've had a Snickers bar and that works pretty well. But I used to hold off gels until the last couple of hours to avoid placing stress on my stomach.









# RAPID RECOVERY

Recuperating properly from a big event not only makes the next week less painful, but you'll be back riding stronger than ever

WORDS **JAMES WITTS**

**Y**ou've crossed the line, the cheers have died down, your heart rate has finally dropped below 200bpm – yes, it's sportive recovery time. While your thoughts may be turning to the nearest hostel for a long, cool possibly alcoholic post ride tippie, be aware that neglecting proper recovery strategies will ensure your body has a hangover that will last way beyond the morning after.

This is because after several hours of riding, where your competitive streak may have sent you deeper into your reserves than ever before, you can expect to feel a bit on the creaky side the next day. Historically this has been blamed on lactic acid; a byproduct of producing energy from carbohydrates for years it was thought responsible for aches and pains following strenuous exercise, but recent research suggests there's more to it than that.

'Initial post-ride soreness might derive from lactic acid (often referred to as lactate),' explains David James, professor of exercise physiology at the University of Gloucestershire, 'but the feeling you experience from lactic acid actually subsides within about 30 minutes. Any residual fatigue and pain you may feel after that has more to do with muscle damage.'

This is known as delayed-onset muscle soreness (DOMS), which often flares up 24 to 48 hours after tough or unfamiliar exercise. Despite the concept of DOMS being mooted back in 1902, the mechanisms behind it still aren't fully known, though micro-trauma to the muscle fibre is the likely culprit.

There's also evidence that an increase in exercise-induced free radicals (more on them later) coursing through the bloodstream causes muscle soreness.

Try to remember that the pain from DOMS isn't necessarily a bad thing because it's part of the body's natural healing process. Four days in, though, you might not be quite so convinced. Thankfully, there

are proven strategies to help ease the pain and have you back on your bike in double-quick time.

'The first thing you should do when you cross the finish line is consume a recovery shake containing carbohydrates and protein,' explains Judith Haudum, nutritionist for BMC Racing. 'The drink's carbs refill your glycogen stores, while the protein begins muscle repair.' There are plenty of sports recovery drinks out there that will do the job, including PowerBar Recovery – as used by BMC Racing – but something like a banana blended with 500ml of full-fat milk makes a really tasty alternative.

Sports scientists out there may question this immediate refuelling – using the so-called 'magic window' – as recent research suggests you can still refuel as efficiently even if you don't eat within a few hours of finishing your event. If you've had gastro problems during the ride, that's certainly something to bear in mind rather than try to consume food that'll only exacerbate the situation.

However, Haudum believes that a post-finish-line recovery drink is beneficial. 'I'm still convinced that timing is key because enzyme activity and protein synthesis increase after exercise. If you miss out on the first couple of hours and only have electrolytes, you'll take up just 50% of the nutrients. This could effectively double your 24-hour recovery time.'

Haudum also recommends a post-ride meal that's packed with carbohydrates and protein soon after quaffing your recovery drink – chicken, eggs, ham, cheese, rice or pasta would all be ideal.

## ATOM ATTACK

As mentioned before, free radicals are a by-product of exercise metabolism. These are atoms with an odd number of electrons, which makes them unstable. In search of electron parity, this band of body bandits attacks different parts of your system, including DNA, skin, hair and muscle tissue. Each day, ➔





free-radical attack happens on a massive scale. Add in the extra metabolic cost and increased breathing rate of a sportive and that destructive process is significantly amplified.

'This is where antioxidants come in,' explains Daniel Healey, head of sports science at Tinkoff-Saxo, whose line-up includes both Alberto Contador and Peter Sagan. 'The antioxidants give up their own electrons to neutralize the threat of free radicals.'

A diet rich in fruit and vegetables is a great source of antioxidants and that's why the government recommends five-a-day, although this number should be even greater for cyclists due to the extra metabolic cost of riding. Whether you go for five or more, ensure you consume foods that are high on the ORAC (Oxygen Radical Absorption Capacity) scale. This grandiose title measures the antioxidant capacity of foods, so the higher the score, the greater the benefit. Foods high in antioxidants include plums (7,581 on the ORAC scale), pecans (17,947), broccoli (2,386), cranberries (9,584) and, great news for wine fans – cabernet sauvignon (5,043).

'All you have to do to supercharge your health during periods of hard training or after a race is include foods with the highest ORAC score in your daily intake as often as you can,' says Healey. 'There's no complicated process. It really is that simple.'

As well as fuelling your recovery with antioxidants and (not too much) red wine, you can officially

celebrate your shiny new medal with a pint of beer. Research undertaken by Professor Manuel Garzon of Granada University in Spain has showed that rehydration in his subjects who'd just run in 40°C heat on a treadmill was greater after drinking two half-pints of lager than water alone. Professor Garzon suggested it was down to the carbon dioxide in the lager helping to quench the athlete's thirst.

Be warned, drinking lager should be accompanied by constantly sipping some water or an electrolyte drink along with it for optimal rehydration.

## FLUSH OUT THE PAIN

Increasing blood flow is another way of flushing out free radicals and accelerating recovery time. It's why Team Sky introduced the concept of warming down on turbo trainers into the professional peloton. At first they were mocked but now every team follows their protocol. Recreational riders can warm down on a turbo trainer, but be realistic. When you've been cycling for three hours, the last thing you want to do is head to your garage and start pedalling away. Thankfully, there are several blood-flow-improving solutions that you wear, rather than wear you out.

'Compression clothing offers a multitude of benefits for riders,' says Akbar de Medici, medical director at apparel outfit Compression Advisory. 'These include improving venous return to speed up recovery and reduce potential muscle damage.'



## RECOVERY WEAR

Key training tools to keep you fresh, fit and in form



Wander around any professional training camp and the riders will be dressed in knee-length socks. This may look odd, but whip out your microscope and you'll discover a world of performance attire. 'Compression wear features graduated pressure,' explains Mike Martin, sales and marketing manager of compression gear manufacturer 2XU UK. 'That's what makes wearing it so invaluable to recovery.'

The idea is that a sock with greater pressure at the ankle than the calves will act like an extra heart, accelerating the venous return of blood – in other words, sending the free radicals in the blood back to the heart faster, which accelerates their breakdown, as well as speedily oxygenating your circulation.

A good fit is key, says Martin, as the purported benefits of compression gear require enough pressure to improve blood flow but not so much that you've effectively applied a tourniquet. Research has shown that femoral blood flow increases to 138% of the norm when the garment is rated at 18mmHg (medical grade compression) at the ankles and 8mmHg at the calves.

### PASSIVE VS ACTIVE

Another recovery method based on increasing blood flow, 'passive recovery' refers to putting your feet up and kicking back – while active recovery is all about hopping back on the bike the day after. 'No way, Jose!' you might say, but studies have shown a gentle 30 to 60-minute ride on a flat route the day after your event will keep blood flowing. Just ensure that you stick to the small chainring and keep the intensity low. If preferred, a gentle swim can also be useful.

Don't neglect passive recovery, though, as you'll want to be able to wind right down – both mentally and physically. However, when you're watching highlights of the Vuelta, throw in a few leg elevations to help your blood flow. It's also worth having a shower and switching between blasts of hot and cold water, if you can bear it – but try not to go overboard.

'I'd also recommend massage,' says Trek Factory Racing's Bauke Mollema. 'We have one after every stage of the Tour.' You might not be riding over 3,000km in three weeks, but a post-race massage will pay dividends, not only as it helps flush out those ➔



Photography: Geoff Waugh. iStock



### COMPRESSPORT R2 COMPRESSION SLEEVES

from £30, [compressport.uk.com](http://compressport.uk.com)  
The compression brand of choice for Contador and his Tinkoff-Saxo team-mates. Cyclists should go for calf versions like the R2 over full tights – this keeps it area-specific and more breathable.



### PHYSIOROOM.COM ELITE FOAM ROLLER

£19 (90cm), [physioroom.com](http://physioroom.com)  
An affordable roller constructed of EVA foam, which purports to resist moisture. That should not only maintain good, solid contact between you and the roller, but also avoid it rolling into a sweaty mess.



### RESTWISE RECOVERY APP

£9.99 per month, [restwise.com](http://restwise.com)  
A high-tech solution to overdoing it, albeit one that requires a certain commitment, Restwise is an app that – through a series of measurements and questions – gives you a daily recovery score.



### SIS REGO RAPID RECOVERY POWDER

£39 (1.6kg), [wiggles.co.uk](http://wiggles.co.uk)  
SiS's Rego formula features the scientifically proven optimal protein serving of 20g, plus 20g of glycogen-refuelling carbohydrates. One tub should last around 30 servings.



toxins, but it also stretches out muscles that have been contracting and crunched-up for hours on end. Many sportive organisers hook up with local physiotherapists who'll offer competitors a post-ride massage at a good price. You can also try this yourself by using a foam roller for some home-style relief.

Ice baths and anti-inflammatories have been used for years to purportedly increase recovery time. However, beyond the impracticality of filling a tub with ice, recent studies into both suggest they may actually slow down, rather than accelerate, recovery.

Finally, all that's left to do is undertake the best mode of recovery – sleep. Elite cyclists reportedly get their heads down for up to 12 hours a night in search of rapid repair. Your body might demand the same after your event, but restlessness, adrenaline and

twitching muscles may all conspire to keep you awake into the early hours. But don't fret – that's where a spot of good sleep hygiene comes in.

'Using eye masks and ear plugs and having a nice, cool temperature in the room all help send you off,' says Australian Institute of Sport sleep expert Shona Halson. 'Staying off bright-light devices like smartphones and iPads also helps because the subtle flickering light stimulates the body clock and tells you to stay awake. You want as dark a room as possible in the hour just before bedtime and make sure you don't go to bed with a full belly as you'll just wake up in the middle of the night needing the loo.'

You've refuelled, you've compressed, you've slept – now all that's left is to wash your bibshorts, sign up to your next event and get training again. 🚴

24  
HOURS  
RECOVERY

## RECOVERY TIMETABLE

There's little time to revel in the limelight as recovery starts from the moment you dismount...

### CROSSING THE LINE

Have a carbohydrate-protein recovery shake waiting for post-ride consumption. Your goody bag will inevitably feature a healthy bar of some sort. Consume with impunity – you've earned it.

### 10MINS AFTER

Treat yourself to a post-sportive massage – it'll be a tenner well spent. Warning: this may feel a touch painful but, as *soigneurs* the world over would undoubtedly tell you, the pain is worth it.

### 20MINS AFTER

Once your massage is over, slip into a pair of compression socks. They may not be the sexiest attire around, but they'll begin flushing out toxins.

### 75MINS AFTER

You've packed your bike into the car and found the local pub. Now's the time to continue refuelling. You don't have to follow the professional monastic path, but it's worth aiming for a meal high in carbs and protein. Chicken and chips wouldn't be a bad option, but ideally both are oven-baked and accompanied by a colourful salad. A cherry pie dessert will send antioxidant levels through the roof, as will a well-deserved glass of red wine. Beer drinkers may prefer a pint, but top up your hydration with a glass of water.

### 150MINS AFTER

By now, you've consumed your meal, briefly celebrated and are either back home or in the hotel. Try a hot-and-cold alternating shower to aid passive recovery. Also take a bath – even if this gives more psychological than physiological relief.

### BEDTIME

A brief, gentle stretch before bedtime will help loosen up those pedal-crunched muscles. Also a pre-snooze glass of milk will aid muscle recovery and sleep. Don't look at any of your mobile devices in bed, make sure the room is at a comfortable temperature and leave the window open so it doesn't get stuffy in the night.



### THE MORNING AFTER

For breakfast, porridge topped off with honey will supply a good dose of slow-releasing carbohydrates for the first part of the day. A boiled egg and soldiers will provide a further carbohydrate hit as well as some much-needed muscle-repairing protein. Keep sipping water.

### THE LIGHT RIDE

You needn't take a whole day off – if you keep today's exercise light you'll reap the benefits tomorrow. Shift into a low gear and head out for a gentle 30 to 60-minute bike ride. This'll ease out aches and pains and keep the blood flowing. You'll feel tired, so ride a route that's relatively free of traffic. If that's not feasible, a gentle turbo-trainer session would be a good option (if you have one).







## 'ELITE CYCLISTS SLEEP FOR 12 HOURS A NIGHT IN SEARCH OF RAPID REPAIR'





# ON THE ALE TRAIL

Performance killer or post-ride recovery potion? *BikesEtc* pours over the scientific truth behind drinking and cycling

WORDS **ROB KEMP**

**M**att Brammeier has a weakness. 'As with all cyclists, he likes a beer,' explains Brian Smith, manager of team MTN-Qhubeka while commenting on Brammeier's intermediate sprint win during the 2015 Tour of Flanders. Brammeier – rewarded with his weight (73kg) in Steene Molen beer (75cl bottles) – was in for a good night. There's even research from Granada University that shows how beer after a session in the saddle is an ideal antidote – quenching thirst and replacing energy that water can't.

But exercise physiologists and the sports scientists advising the pro teams aren't often asked the kinds of questions posed by many amateur riders most weekends such as – which beers are best for riders? Or – how do you crash-cure a hangover ahead of a 50-mile Sunday stretch? Allow us to illuminate...

According to the aptly named John Brewer, Professor of Applied Sport Science at St Mary's University, Twickenham, drinking alcohol in the days prior to a big ride is hardly performance enhancing. 'A session on the beer a night or so before a big event decreases skill and coordination, and makes it harder to focus on targets or goals,' he says.

'It's also a diuretic – this means it can cause dehydration, rather than rehydrate in the

way that non-alcoholic drinks do,' Brewer explains. 'Since scientists know that even relatively small amounts of dehydration impact negatively on performance, so alcohol is not recommended for this reason.'

Dehydration doesn't just present itself in the form of a dry mouth and increased thirst. Every alcoholic drink you have reduces the liquid component of your blood (plasma volume). The knock-on effect of this means your heart is put under extra strain to provide the muscles with the volume of blood it's used to – especially when those muscles are challenged to work harder by hills.

If you've ridden with a hangover and found yourself gasping for breath or aware of a rapidly racing ticker midway uphill, that's most likely the booze taking its toll. Most infamously, this combination – along with a 'chaser' of amphetamines – is believed to have been the cause of the tragic death of legendary Brit cyclist Tom Simpson while climbing Mont Ventoux during the 1967 Tour.

## Beers & breakdowns

During the body's processing of alcohol – metabolising it to the point where it can be flushed out – it's turned into acetaldehyde, a substance that's toxic to brain cells and causes blood vessels in your brain to dilate. ➔





**EVERY ALCOHOLIC DRINK  
WILL REDUCE THE LIQUID  
COMPONENT OF YOUR  
BLOODSTREAM FURTHER**





'This is one of the reasons for a post-binge headache,' explains Nigel Mitchell, Head of Nutrition at Team Sky. 'Alcohol also saps the body of its ability to maintain blood sugar levels, depleting organs – including the brain – of their main power source, slowing your thinking as well as your reaction times. There are no miracle cures for alcohol-induced dehydration and the effects of a booze binge can leave the body below par for several days.'

Don't think that because you've got a full 24 hours between a Friday session on the sauce and a Sunday one in the saddle that you'll be fully fit. Prevention really is the key. 'The best way to reduce the impact is to drink plenty of non-alcoholic fluids before, during and after a night in the pub,' Mitchell adds. He suggests taking on water between bottles of beer (as opposed to pints, ideally) or to drink spirits (clear ones like gin or vodka) with substantial amounts of mixers. 'Drink water when you get home, take a pint of water to bed with you and look to bolster those blood sugar levels at the end of session, too. Though perhaps not with a greasy fat-filled kebab. Then eat a high-fibre, high-carbohydrate breakfast to slowly raise your blood sugar levels the next morning.'

### Fatter not fitter

The side effects of a night on the tiles won't just leave you nursing a sore head with a tongue like a cat-owner's carpet. It can also seriously hamper your body's ability to burn fat, with punishing repercussions for weight management. (Those cyclists chasing the holy grail of body fat reduction and Lycra-friendly leanness may want to look away at this point.)

Within minutes of sipping a drink, your fat metabolism will go for a metaphorical nap. The body doesn't recognise alcohol as a socialising stimulant and means of transforming one into a confident bar-room wit and move-busting dancer. No, both body and brain see beers, wines and spirits – or any other form of alcohol – as a potentially lethal toxin. As such, its removal from the system becomes the body's number-one priority.

Research from Laval University in Quebec highlights how this need to deal with alcohol causes the body to stop burning its usual stored carbohydrates and fat for energy. The focus switches to flushing out the alcohol – so

## BOOZE SWITCHES OFF THE BODY'S FAT-BURNING MECHANISMS

the rest of the body's natural calorie-burning processes are also compromised.

'That's dangerous for your waistline,' warns Mitchell. The number of calories in alcohol is high, at around seven per gram (7kcal/g). Carbs are usually around 4kcal/g and only fat, with 9kcal/g, is more calorific. Even if the body burns a percentage of those calories when its busy metabolising the booze, it's not the kind of fuel source it can burn through quickly. Instead, alcohol burdens the liver with a process that takes several hours.

Once you're out on the bike, your body will convert any carbs for energy as they're more rapidly processed – pushing alcohol down the list, which is bad for metabolism. The amount you drink, plus sugary mixers and salty snacks, will add to your fat intake and hamper your energy production. 'Alcohol calories result in energy intake that's in excess of energy expenditure,' Mitchell explains.

Even though cyclists come in a variety of sizes and guises – with genetics also influencing each body's processing of booze – it takes around one hour for the average male to metabolize 18ml of alcohol (the amount in a 330ml bottle of beer at 5% ABV). US studies, published in the *American Journal Of Clinical Nutrition*, found that people who downed just two cocktails showed a remarkable 73% reduction in fat-burning after two hours.

### Apnea hour

'It also cripples a cyclist's crucial sleep patterns,' warns John Brewer. While a beer or wine late in the evening can give the impression of helping relax both body and mind in preparation of a good night's rest, for cyclists gearing up for an early morning start, it could be a sleep-sabotaging move.

Research in the *Journal Of Clinical Psychopharmacology* from the University ➔



## BIKE BEER PINT-LOVING PELOTON

Some famous names to ride alongside – but you may not want to be stuck in a round with any of these booze fellows



### Jacques Anquetil

(Tour de France champion five times between 1957-1964) infamous for intoxication coupled with determination and carrying a reserve bidon that Ollie Reed would balk at. Nicknamed 'Monsieur Chrono' after his time-trial prowess.



### Peter Sagan

The hard-partying, hand-wandering Slovakian Tinkoff-Saxo rider was recently awarded his weight in Kwaremont beer (221 bottles) as a bonus prize for winning the 2014 edition of the Belgian cobbled E3 Harelbeke one-day race.





## ILLEGAL HIGHS

If poor performance, fatigue and injury risk weren't reason enough to ban a few pre-ride pints, falling foul of the law might put you off...

# 30

The specific section of the Road Traffic Act 1988, that states: 'A person who, when riding a cycle on a road or other public place, is unfit to ride through drink or drugs is guilty of an offence.'

# 24%

The percentage of 2012 UK-cycling fatalities (41 of the 118 killed) who, when tested for blood-alcohol levels, had over 9mg/100ml of alcohol present. It was also recorded that 15% of them were over the drink-drive limit. That's quite a sobering thought.

# 80MG PER 100ML

The alcohol/blood level that researchers from the Institute of Legal Medicine, University Hospital Düsseldorf, Germany noted had a significant increase in 'gross motoric disturbances.' That's 'being able to ride in straight line' to you and me.

# 2%

The percentage of cases in 2013 (276) where cyclists had 'impairment by alcohol' assigned to them in road accidents. For comparison, the 'car' equivalent of this figure was an even higher 3% (3,874 cases).

# THIRD

Where 'impaired by alcohol' came (scoring 15%) in the top-ten list of 'contributory factors' assigned to car drivers in collisions that killed cyclists during 2005 to 2007. In comparison, being 'impaired by alcohol' doesn't even appear in the cycling equivalent for fatal, serious or slight two-vehicle collisions.

# 10

The number a times a drunk cyclist is more at risk of injury than a sober one. Various studies have also found that inebriated cyclists are far more likely than sober cyclists to be severely injured or killed. Take care, you have been warned.



**Adam Hansen**

The Australian cyclist for Belgium's Lotto-Soudal recently swapped his water with a spectator for a can of beer during the eight-day Tour of Turkey, and was snapped with a pint of beer in hand while climbing Alpe d'Huez in the 2013 Tour.



**Bradley Wiggins**

Following the 2004 Athens Olympics, Wiggo took up 'collecting' Belgian beers. The following 12-pints-a-day, nine-month bender sent his bodyweight ballooning and only the birth of his son brought him back to his senses.



of Zurich reveals how alcohol disrupts the second half of the sleep period. Study subjects were observed to suffer less fitful sleep, especially during the deeper, more recuperative period, along with waking from dreams and returning to rest with difficulty.

This in turn led to daytime fatigue with inevitable repercussions for riding times, performances and even injury risk. An unsettled sleep cycle upsets the body's ability to store glycogen, according to a new study into performance and alcohol by Professor David Cameron-Smith of the University of Auckland, with a range of detrimental effects including decreased mental sharpness.

Some quantities of alcohol in your system can raise the levels of the stress hormone cortisol. This can have the drastic effect of reducing the levels of human growth hormone (HGH) in the blood by as much as 70%. HGH is vital for building and repairing muscle tissue as well as increasing muscle strength and promoting injury recovery.

### Ale is not lost

But immediately after a race or long ride, when there's no immediate need to be clear-headed the next day, celebratory drinking sessions have been used as successful tools among many pro teams. Well-timed drinking sessions can help unite teams, bond riders and relieve the pressure to perform.

Australian research published in the *International Journal of Sports Nutrition And Exercise Metabolism*, even found that 'adapted ales' – with the alcohol content lowered to 2.3% and with added electrolytes – could work as sports drinks. In tests on endurance athletes, this lower-alcohol mix hydrated the trial group better than traditional-style ale.

Beer has also been shown to have some anti-inflammatory and antioxidant qualities, according to German research. A range of

positive physiological effects include its propensity to boost the immune system of those undergoing prolonged strenuous exercise – which in turn makes them less prone to upper respiratory tract infection.

However, the *International Journal of Sports Nutrition And Exercise Metabolism* study also confirmed that alcohol slows down muscle protein synthesis – key to exercise gains and muscle recovery – by nearly 40%. So, for Matt Brammeier and the rest of us, it may be wisest to make the first post-ride pint a protein shake, before hitting the bar. 🚲

**ALCOHOL CAN  
REDUCE GROWTH  
HORMONE LEVELS  
BY UP TO 70%**



## BIKE BEER ONE FOR THE ROAD

Why not try one of these popular choices? In moderation, of course...



### BAVARIA RADLER

(German for 'cyclist') Crisp, citrus-like and low-alcohol to the point of being shandy, purportedly invented in 1922 by an innkeeper swarmed by 13,000 thirsty cyclists. At around 2.5% ABV, it's deemed a 'safe' mid-ride refresher.



### MOOR RIDER'S REVIVAL

Made by Bristol's Moor Beer Co for London bicycle café Look Mum No Hands, this pale ale is brewed with Chinook hops and green tea. Fragrant, slightly bitter and just 3.8% abv, it's a perfect post-ride refresher.



### SAN MIGUEL

A study by Professor Manuel Garzon, head of the medical faculty at Granada University, found that cyclists performing intense drills recovered better while drinking Spanish beer rather than plain water. Can we take part next time, prof?



### BITBURGER DRIVE ALCOHOL-FREE

The beer of choice for the German national football team, it's a fully matured Bavarian lager and best served well-chilled. It delivers some nice malt and biscuit notes on the palate and little bitterness.



### ERDINGER ALCOHOL-FREE

According to globetrotting beer writer Tim Hampson, it's the use of wheat that gives this classy beer its crisp refreshing flavour; while classic German Hallertau hops lend it a pleasantly earthy aroma.



**Bikes**Etc

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# HYPER LINKS

No other drive system can match the efficiency of the classic bike chain – and without it, your bike is going nowhere fast

WORDS **ANDY WATERMAN** PHOTOGRAPHY **JENNI LESKINEN**



**10**  
SPEED

**Connex 10S0**  
**£30**

German engineering at a brilliant price. A unique straight-edged (as opposed to figure-eight shaped) plate design claims to improve shifting performance.  
[extrauk.co.uk](http://extrauk.co.uk)





**T**ao Geoghegan-Hart was having a dream season in 2013. The young Brit had placed third in the junior version of Paris Roubaix, signed a contract for the coming year, his first as a U23, with the US-based Bissel Development Team and won the overall, points and mountains jerseys at the prestigious junior stage race, the Giro Della Lunigiana – the final big warm-up race before the daunting World Championships in Florence, Italy.

If there was ever a dead cert for a rainbow jersey, Geoghegan-Hart was it. But cycling doesn't work like that.

'The race was going perfectly to plan. I had all of the sensations of top form, but then, with three quarters of a lap to go, I noticed the chain jumping a little. Then suddenly my legs were spinning round uncontrollably. What was going on? I looked down to see nothing there. The chain was gone.'

With no convoy in junior races, just neutral service cars, he waited an age for a new bike, but by then the race, and the chance of winning was gone.

'Afterwards, I was gutted. If you don't have it, you don't have it, but when something like that goes wrong, out of anyone's hands, it's frustrating – but there's so little you can do.'

Geoghegan-Hart wasn't the first rider in history to have their shot at glory thwarted by a broken ➔



chain – who can forget David Millar's bike-throwing antics when he snapped his chain sprinting for victory in stage 5 of the 2008 Giro? – and nor will he be the last. We put a lot of trust in those hundred-odd links of steel, rarely questioning their role until something goes wrong. And the fact that something goes wrong so rarely – even as chains have gone from thin, to thinner, to barely there at all – is testament to their vast, subtle feat of engineering, as well as the design, composition and fabrication method.

### THE MISSING LINK

'Although, on first inspection, the chain appears to be exactly the same as it was at the turn of the century – a chain from 30 years ago and one from today are about as similar as a Bora Ultra Two and a 32-spoke wheel,' says Joshua Riddle from Campagnolo. The job of a chain is the same as it has always been – it needs to engage perfectly with the teeth of the chainring and cassette, rolling smoothly without wearing too quickly. But adding more cogs to the cassette together with a drive for perfection has complicated matters.

'With more gears – seven, eight nine to 10; to the current 11 – the space available for them was continually decreasing,' says Riddle. Having not as much space for your gears means there's less space for a chain, so the

## EXTRA TORSION IS REQUIRED TO CROSS OVER 11 SPROCKETS

chain needs to be slimmer, and both drivetrain and chain more precise. 'The chain also needs to accept a higher degree of torsion (bending force) to cross 11 sprockets,' he adds.

To create a slimmer chain that was still strong, performed well across the cassette and resisted fatigue as well as (or better than) older designs, required the use of new materials and new techniques, says Riddle. 'Apart from the materials that make up the chain and the width, the individual chain link has evolved as well. A chain from the past was relatively two-dimensional. Modern chains have a meticulously studied design that has been developed in tandem with the drivetrain in order for the two to function seamlessly together. There are profiles on each link that help to accompany the chain up and down over the chainring and cassette upshift and downshift zones, and teeth.'

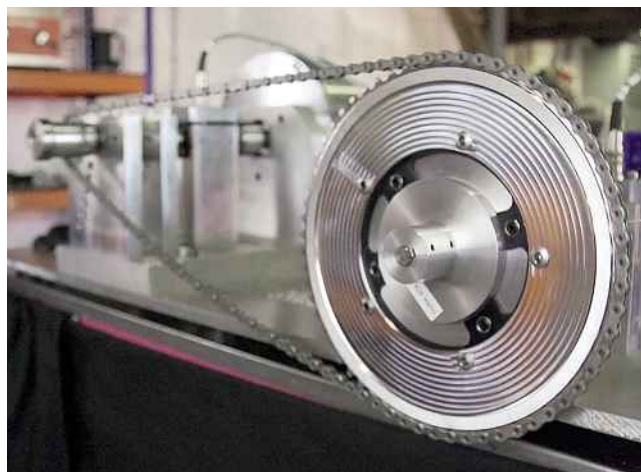
In spite of increased performance, Riddle is keen to stress that reliability is still the most important factor when

## SMART LINKING

The story behind Wiggo's Hour-attempt chain

Taking Shimano's top end Dura-Ace chain as the starting point, the technicians at Poole-based Muc-off ran a batch of 40 chains through their dynamometer – a specially developed piece of equipment that allows them to calculate the exact wattage lost to resistance of any chain and lubricant combination. This clever jig also allowed them to test the custom made chainrings prior to Wiggo's record attempt

to rule out any issues. The six smoothest-running chains were then sonically cleaned and treated with a secret lubricant formula containing expensive additives used by the military. The final two fastest chains were then hand delivered to Team Wiggins. Muc-off's Alex Trimmell estimates the cost of developing and testing the chain at 'around £6,000' thereby making it the world's fastest and most expensive.



11  
SPEED

**KMC X11-93**  
from £28

KMC's entry-level 11-speed chain will work with Shimano, Campy or SRAM gears and comes with the excellent Missing Link connector for easy fitting.  
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11  
SPEED**KMC X11-SL DLC**  
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designing a chain. 'People overlook the fact that it's as much of a safety component as a performance one', he says. 'Efficiency, lightness and performance are definitely factors that we try to maximise – but never at the expense of reliability.'

The weak point in any chain, in this writer's experience at least, tends to be where it has been joined after installation. To make that process as foolproof as possible, manufacturers have come up with a variety of tricks and bits. These range from brand-specific tools to quick links and, in Shimano's case, a special long pin that you snap off in place. Of the big three groupset manufacturers, SRAM is the only one to employ a quick link.

**TROUBLE-FREE TOOLS**

'PowerLink and PowerLock were designed to be safer, easier and trouble-free tools,' explains Géraldine Bergeron, SRAM's European Road PR Manager. 'Not only for the end-users but also for shops and bike brands – they really love this feature when it comes to putting bikes together on assembly lines. Also, even a good shop mechanic can't rivet a chain as strongly as it's done in the factory. The PowerLock solves that issue.'

As the newest member of the big three, SRAM got a jump on its groupset development by buying the German chain manufacturer Sedis/Sachs, the company that pioneered bushless chains in the '80s, a technology that allowed the chain to have more lateral flexibility and paved the way for the soaring number of gears we see today.

'Before acquiring Sachs bicycle division, SRAM didn't have the level of expertise and know-how they possessed regarding some ➤

## MAINTENANCE

JLT-Condor and Madison-Genesis pros share their expert advice

**A**s Production Director at Condor Cycles, Neil Manning sees a lot of bikes on their way to both customers and the JLT-Condor team, and consequently, a lot of chains. As an industry veteran, Manning advises using a cheaper chain, but replacing it regularly to maximise the lifespan of your drivetrain.

'The team,' he says, 'are using Record [a high-end Campagnolo groupset] but they're changing wheels regularly so they get Chorus chains and cassettes, which are much cheaper. Their bikes are already at the UCI limit, so they don't need the weight saving that a Record chain and cassette provides.'

'A team might get 50 cassettes per year, but they'll get 250 chains as they change those often – about 20 chains per rider per season,' says Manning. 'It's important the chains don't stretch beyond a certain point in case they have to get a wheel from neutral service – as they don't want it to skip.'

'It's good practice to use a cheaper chain and replace it more often,' says Manning, 'but don't go too cheap – one up from bottom of the range is a good compromise.'



Sam Hayes is the Service Course Manager for the successful Madison Genesis team, which uses Shimano components. 'We always use Dura-Ace [Shimano's top level groupset] chains', he says. 'For one thing, it's easier for me to just order one type; and secondly, they last longer,' he says, referring to Shimano's Sil-Tec technology, a low-friction coating that makes the chain run smoother and improves its longevity.

Hayes is very keen on keeping his chains clean, but he also keeps an eye on wear with a chain checker and replaces them as soon as the tool tells him to.

'A dirty chain wears everything away quicker,' he says – a gritty chain will wear away chainrings and cassettes at an incredible rate. To clean the bikes after a race,' he says, 'I use neat Finish Line degreaser applied with a hard brush – bike in the stand, rear wheel still in – and I coat the whole thing. I do that before getting it wet, no matter how dirty it is. If you look after a chain, it will last – there's no need to replace them that often.'

A big no-no for Hayes is staying in the big ring at all times – it might make you feel like a Pro-Tour hero, but it's costing you money. 'Staying in the big ring all the time and riding cross-chained really kills the chain,' he says. 'It's not efficient and there's more resistance. If you're an amateur and you buy your own parts, drop down to the small ring early!'

## A GRITTY CHAIN WILL WEAR CHAINRINGS AND CASSETTES AT AN INCREDIBLE RATE



## CRITICAL CARE ESSENTIALS

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### KMC CHAIN CONNECTORS

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Carrying a quick link can be the difference between an annoying five minutes fixing a chain at the side of the road and a long walk home. A basic chain tool is included on many multitools – and they're really worth their weight in gold when the worst happens.



### PEDRO'S CHAIN PIG

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While Fairy Liquid and a sponge will do, if the chain's filthy after a wet ride, a dedicated cleaner will quickly get it spotless. Incorporating multiple brushes and rollers in a pink porcine package, Pedro's chain pig is a *BikesEtc* favourite. Get one.



### BIRZMAN CHAIN CHECKER

£3.99, [i-ride.co.uk](http://i-ride.co.uk)

Use a chain checker like this one from Birzman to keep on top of chain wear. Replacing the chain regularly will maximise the life of chainrings and cassettes, especially if you own multiple wheels.

### FINISH LINE LUBRICANTS

£7.49 (120ml), [madison.co.uk](http://madison.co.uk)

Many lubes come in different formulas for either wet or dry conditions, but which you choose might have more to do with your attitude. 'Wet lube picks up a lot more grit,' says Sam Hayes of Madison-Genesis. 'Finish Line Dry lube works well for me, even when it's wet. A little also goes a very long way. Two or three revolutions of the cranks is usually perfect.'



10  
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key materials, technologies and production processes such as steel, stamping and heat treatment,' says Bergeron. 'It would have been very unlikely that SRAM would have started from scratch. It's very difficult and costly to start with nothing, especially for this type of product, which requires years of expertise. That's probably the real reason we don't ever see any new chain companies emerging.'

For all the clever developments in drivetrain tech over the past decades, the chain, at first glance, appears little changed. That may not be the entire truth of the matter, but it's noticeable that other methods of propulsion

## TODAY'S CHAINS STILL TRANSFER POWER BETTER THAN ANYTHING

are making their way towards the mainstream via the easily overlooked corners of trade shows and a growing band of niche frame builders. Will things like belt drives ever make it all the way onto mainstream race bikes?

'Today's chains are still superior in terms of efficiency compared to any other form of power transmission,' says Bergeron. 'It may take several decades before a drive belt is able to perform as well as a chain.'

That's a sentiment echoed by Rudy Bouwmeester of Shimano. 'There are always developments left to be made,' he says, 'but the chain is still the most efficient transmission tool available. We don't expect any changes soon, but other transmissions are available for specific goals such as low maintenance, design and appearance.'

### CONSTANT EVOLUTION

'It'd be easy to look at technology today and say that the chains couldn't get any better,' agrees Riddle. 'That's not the case. Materials are in constant evolution, production techniques are improving, and engineers are always looking at ways to improve each and every part. As such, I wouldn't rule out an eventual improvement on what is already an exceptional, if often overlooked, part of the drivetrain.'

Without a chain, a bicycle is little more than an expensive hobby horse, no faster or more efficient than walking. Maybe it's time we gave chains and the technology behind them the appreciation they truly deserve? All you need is a little degreaser, a clean rag and some fresh lube to start. ⚙️



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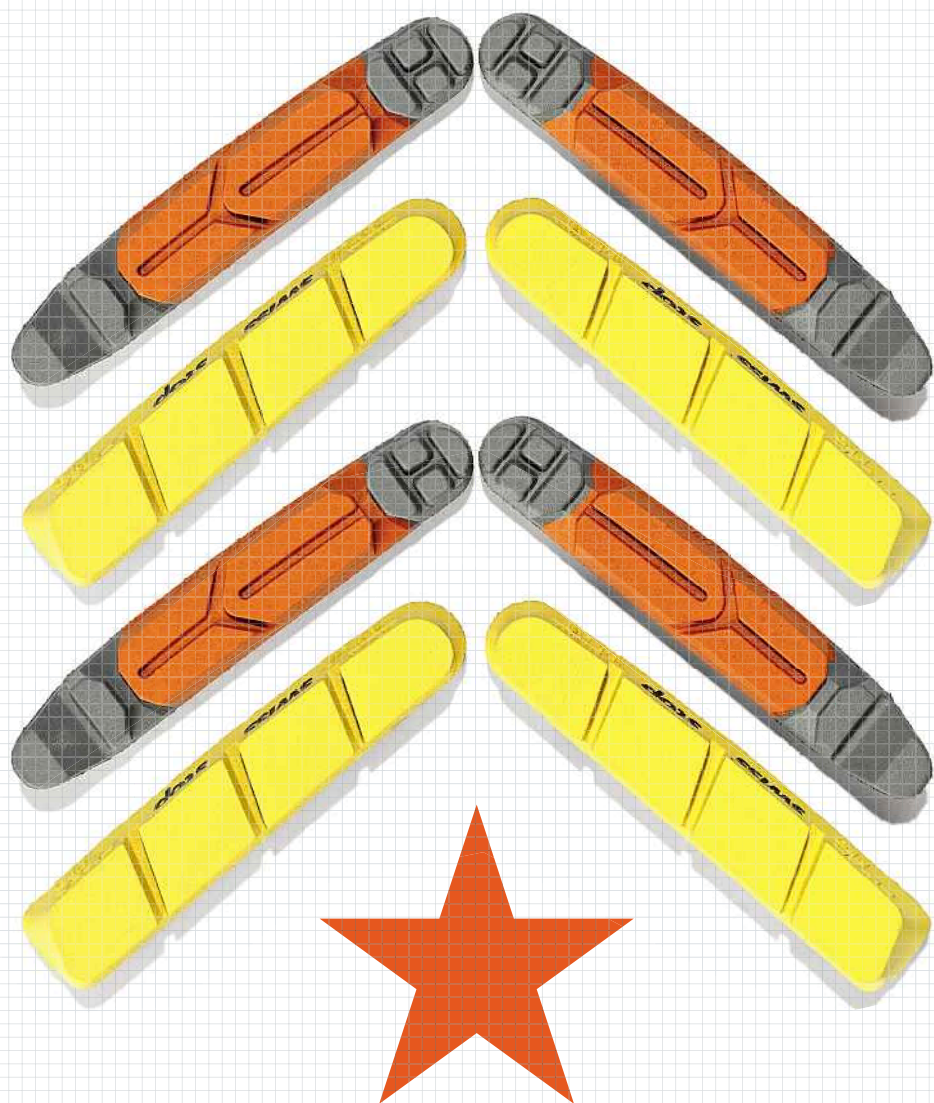
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# BRAKE RANK

The slivers of rubber sandwiched between your brake calliper and wheel may not be glamorous, but considering the job they do it's worth paying them some serious attention

WORDS **JOSEPH DELVES**

**T**he bicycle as we know it didn't spring into existence fully formed. Its slow mutation from rolling wooden frame and wheels with no chain to the design we recognise today took many different technological leaps.

If proof were needed that our predecessors were tougher than today's safety-conscious cyclists, consider that although bicycles have existed in one form or another since 1817, it was another 80 years – long after the development of such features as cranks and pedals – before its unstoppable progress was finally brought to a halt with the invention of the first effective brakes.

Early bicycles, such as the penny-farthing had a fixed wheel design – the cranks attached directly to the centre of the front wheel. In theory, you could slow the bicycle down by 'leg braking' – resisting the movement of the pedals in much the same way as a modern track rider comes to a halt (track bikes still come without brakes, ironically for safety reasons). However, in reality the mechanics of this design made controlling speed extremely difficult, adding to the bike's reputation as the preserve of devil-may-care dandies.

As wheels began to sport the first solid rubber tyres, rudimentary brakes also started to appear. These took the form of a plunger located in front of the head tube. When activated it jammed a curved metal plate housing a leather shoe directly onto the front wheel. It was this type of design that adorned Maurice Garin's bike on the way to victory in the inaugural Tour de France in 1903. Pretty hopeless in the dry and utterly lethal in the rain, they were eventually killed off by the arrival of the pneumatic tyre, which would quickly tear apart under the force of the direct braking. Bicycle manufacturers responded to the trend for air-filled tyres by creating the first calliper-style brakes, complete with rubber brake blocks.

'Vintage rim pads have remained very consistent for over a hundred years,' says Ellis Blackman, cycle division manager at British company Fibrax, which has been making brake pads since the early 20th century. 'In 1907, we secured a patent for pads combining natural rubber with cotton flock. We still produce this style for vintage bikes, as it's so well suited to steel rims.'

## ROLLING THROUGH THE YEARS

It has always been rim technology that has dictated changes in the materials used for brake blocks. Even though steel rims were the norm for most riders during the early part of the 20th century, racers favoured hoops made of wood as they were far lighter.

The downside of these lightweight organic rims was their propensity to melt standard rubber brake pads. The solution was to use natural cork instead, which rapidly became the norm due to its heat-shedding properties. With the world's supply of antique cork brake pads having long since been exhausted, vintage cycling enthusiasts are regularly driven to drink by their search for a replacement. Luckily, in this instance the answer really is at the end of a bottle, as the



traditional cork stoppers once chopped into shape are the perfect substitute.

In 1934, French rim maker Mavic created the aluminium 'Dura' rim, an eyeleted box section tubular that would define the design of racing wheels for the rest of the century. Always resistant to change, the organisers of the Tour de France banned them from competition but craftily, the winner of the 1934 race, Antonin Magne, had his mechanics paint imitation wood grain onto the rims to avoid detection. From then on rubber compound brake pads and aluminium rims became the norm.

Although brake pads still look outwardly much the same as they did back then, the technology has in fact come on a long way. Alloy wheels, and more recently carbon rims, have forced makers to redesign their original rubber compounds. These days, a whole range of secret fillers and additives are used to modify the properties of the material, depending on the application, with each brand jealously guarding the exact composition of its formula.

### IN THE MIX

'The performance of a material is all about its ingredients; it's a bit like a cake mix,' says Blackman. 'We've spent many years formulating and enhancing the recipes. Material is key, but it's also important to ensure the surface of the pad is clear of any debris. The design of our pads ensures that they're self-cleaning, preventing grit from becoming embedded into the surface and scoring the rims.'

While the compounds used in brake pads have evolved, their effectiveness remains to a large extent dependent on the rim itself. Although every cyclist accepts having to intermittently replace their pads, many are surprised the first time they discover that the action of repeatedly braking has eaten away their rims until they too need replacing.

## SHOW STOPPERS

Brake pad care tips for optimum performance



If your pads are excessively worn, they're good only for the bin. Some pads will have a wear line marked on the side – check them for this when they're new. If you can't see one, ensure there's an absolute minimum depth of 2.5mm of material remaining outside the holster that the pads slot into.



Loosen the retaining screw in the back of the holder and slide the pad out. Check for metallic particles in the pad; pick any out with a sharp pointed instrument. If the surface is unevenly worn, or has become glazed due to excessive heat, you can sand the top layer off using a file.



There's no point having clean pads and mucky wheel rims. First, check the rim is not excessively worn – the brake track should be flat, not concave. If they're safe, clean with a non-oily solvent like soapy water and then give them a quick wipe with a scouring pad and some surgical spirit.

## 'If you drag your brakes on a long descent, heat build-up will kill the pads'

'A good brake pad provides safe stopping power and won't damage the rim,' says Tim Watson at Oregon-based brake pad maker KoolStop. 'Poorly made pads may look nice to begin with but they rapidly pull metal from the rim, which becomes embedded in the pad, causing further damage. Often the consumer won't know until the damage has already been done.'

Even the best pads will eventually wear away the rim they're used with, although clever chemistry can create a pad that generates plenty of stopping power, wears

slowly and is gentle on the rim. It's not just down to the pad maker though; braking technique and rider knowledge is just as crucial as a good compound.

'The materials used in the compound affect the function of the pad, but you also have to keep an eye on heat build-up at the point of contact,' says Watson. 'If a rider grabs and drags a pad on the rim and doesn't let off and allow it to cool, then heat build up will eventually kill the pad. I've seen riders of identical weight riding identical set-ups finish a long descent and one rider had ➔

### ★ AZTEC



#### Aztec Carbon Compound

£8 (pack of 2)

The first pull of the lever reveals the plentiful bite offered by this budget pad with little being given away once the rain starts. A silent performer, we were impressed given their low cost.

maddison.co.uk

OVERALL  
7/10



#### Aztec Road Plus

£7 (pack of 2)

Decent braking in wet and dry, with respectable modulation in this budget pad. A slightly higher tendency to pick up metal from the rim than some other pads is the only fly in the ointment.

maddison.co.uk

OVERALL  
7/10



full pads while the other's were totally worn out and the rims overheated and damaged. You have to let go.'

This has become particularly important with the advent of carbon fibre rims, which can generate and store a far greater amount of heat under braking. 'In the old days, aluminium rims worked in our favour by dissipating the heat build-up, but on carbon and other exotic wheels we have to combat heat with different compound mixes.' Carbon brake tracks are a mean and difficult surface to brake on. 'Different carbon and resins create different results during braking so rider technique is even more important.'

Carbon compound pads are designed to withstand these increased temperatures. Along with extreme heat, compatible pads also need to handle the different demands specific to carbon brake tracks, which can be enormously abrasive. Compatible pads tend to be made of a less aggressive material, which is the reason that standard pads are often too grabby when used with carbon rims. It's crucial to pick the right pad for the job.

Along with carbon rims and long descents cooking your pads, the other common enemy of better braking is the rain. 'Wet weather increases the stopping distance during braking,' says Watson. 'Everyone thinks it's

just water on the rims but motor oil and other contaminants ride on water running off the roads and end up on your brake tracks.'

And once contaminated, brake pads can quickly eat into expensive wheels, so make sure you keep both pads and rims clean.

'A clean rim that's free of burrs is very helpful. Check the function of the pads before each ride, making sure there's no road debris lodged in the pad,' says Blackman. 'If you experience glazing, the pads can be lightly sanded to bring them back to full power. If your rim has been previously damaged you can clean the rim surface with a fine sand paper or scouring pad and rubbing alcohol.'

They might not be sexy but understanding how your pads work and making sure they're in good order will improve your braking and keep you safe. Leaving you to go as fast as you dare, safe in the knowledge that they'll slow you down when needed. 🚲

## 'As well as rain, motor oil and other contaminants can affect your braking'

**★ ASHIMA**



**Ashima Carbon Rim**  
£8 (pack of 2)  
While the stopping power is acceptable, a slight tendency to hiss under braking and a more pronounced drop-off in the wet somewhat cloud an otherwise solid budget choice.  
zyro.co.uk

**C**  
CARBON

OVERALL  
6/10



**Ashima 3 Function**  
£8 (pack of 2)  
The lip on the edge aims to clean grime from your rim. The body also has channels to aid cooling and displace water. Good modulation and power is offset by a quicker wear rate.  
zyro.co.uk

**A**  
ALLOY

OVERALL  
7/10

**★ SWISSSTOP**



**SwissStop Flash Pro Yellow King**  
£40 (pack of 4)  
Expensive but a worthwhile investment. Easy on rims while offering excellent stopping power in wet and dry, oodles of modulation and silent running.  
extrauk.co.uk

**C**  
CARBON

OVERALL  
9/10

**BikesEtc**  
**BEST IN TEST**



**SwissStop Flash Pro BXP**  
£25 (pack of 4)  
Again expensive, but their performance makes a strong case for them being worth it. Noticeably more powerful than cheaper alternatives, they're also kinder to your rims.  
extrauk.co.uk

**A**  
ALLOY

OVERALL  
9/10



MISSION  
PERFORMANCE  
RIDE

**DIMA**  
SELECTOR

# CHOOSE THE GOOD ONE

FOUR MODELS IN TWO WIDTHS  
TO FIND YOUR PERFECT SADDLE  
THROUGH OUR **DIMA SELECTOR**



WIDE



NARROW

*Aspide*



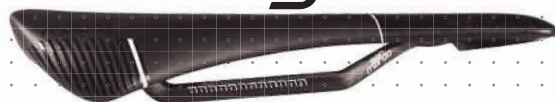
*Mantra*



*Concor*



*Regale*



  
paligap.cc



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# CLEVER CLOGS

Want to ride your bike and then walk away without falling over? These clipless shoes – with enough flexibility and tread to make walking possible – could be the answer



Take your first few steps in a pair of road cycling shoes and you'll be tottering around like a drunken Morris dancer. You'll soon realise they make few concessions to walking off the bike. With little grip and rigid soles, you'll need the poise of a supermodel to avoid Bambi-on-ice moments. Even if you stay upright, you'll soon wear out your cleats.

Luckily there's an alternative: shoes with enough tread to make walking far easier, which pair with pedals that accept smaller, recessed metal cleats – Shimano's SPD is the best known but these shoes are also compatible with Crank Bros and Time Atac systems.

These are ideal for commuters who don't want to change footwear at the other end, or for cyclists who want to walk comfortably between riding. Compatible pedals generally require less force to unclip and with some also featuring double-sided designs, getting your feet in and out is easier, too. They're also ideal for beginners. While mile crunchers may want something a little stiffer, in many situations, shoes with recessed cleats make the perfect solution. We put seven pairs through their paces.



## Dromarti Sportivo £224

The soles on these elegant cycling shoes leave plenty of space surrounding the cleat. This makes setting them up and clipping into the pedals easy, yet the cleat remains recessed enough so you don't sound like you're wearing spurs when walking. Made of leather, they're sturdy enough to keep their shape after a month's commuting. Sufficiently unyielding to let you thrash the pedals, they won't quite let you forget you're wearing cycling shoes when

off the bike. It's a bit of a shame as they're easily smart enough to wear around the office or for a night out on the tiles. Back out on the bike, they're actually among the most efficient and supportive feeling of all the shoes on test. Their beautiful all-leather construction, including the lining of the insole, means that if you take the time to clean them properly they should look after you for many years to come. [dromarti.com](http://dromarti.com)

### Rating

FIT  
COMFORT  
VALUE

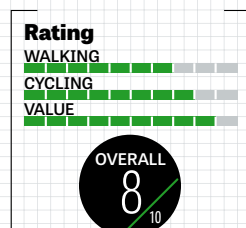
OVERALL  
8/10



## Giro Rumble VR

£70

Spend the day walking in these and you'll quickly forget you're wearing a cycling shoe, an illusion their trainer-like exterior does nothing to dispel. The lace-up closure looks suitably normal while also providing a comfortable and secure fit. Flexible and grippy, their Vibram rubber sole is equally happy scrabbling up rocky trails as it is pounding the city streets. Our only minor gripe was that the cleat, which sits slightly proud of the rubber sole with a tendency to scuff the floor. Compared to Giro's sportier shoes there's plenty of wiggle room in the wide toe box. There's enough flexibility in the sole that you can strut around, but still enough support to spread the pressure across the ball of your foot when pedalling, helping to avoid 'hot foot' discomfort on anything other than long or intense rides

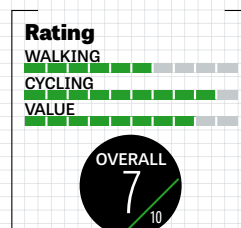


## Northwave Touring S3

£90

Looking like the sort of trainer your mum would try pack you off to PE classes with, the Northwave's three Velcro straps are as practical as they are dorky. It's obvious that these shoes lean slightly more towards cycling than walking compared to some of the others on test. The Touring S3s are among the stiffest shoes here and provide a tighter fit, with a pronounced level of retention on the heel that some of the other shoes lack. Their performance on the bike is pleasingly efficient. Despite the S3's rigidity they're fine to walk in – but they lack trainer-like comfort. Those with wide feet will need to look elsewhere as they're a little narrow towards the toes. If cycling is your priority (and you can overlook their geeky appearance) these are a solid choice.

i-ride.co.uk







## Quoc Hardcourt Low £150

If you don't use clipless pedals, the Hardcourts come with rubber blanking plates to insert instead of cleats, making them a good alternative to regular trainers, which are too flexible for cycling. Their moderately stiff sole is supportive with a reasonable amount of heel retention, although the deeply recessed cleat initially refused to play nicely with our Shimano pedals until we added a shim. The padded tongue also keeps the uppers secure and comfortable, while stray laces are secured by a discreet elastic loop. Their elegant, minimalist looks are finished off with a stylish reflective band on the reverse. Ideal for smart city riders and equally suitable for longer touring-style jaunts.

quocpham.com



### Rating

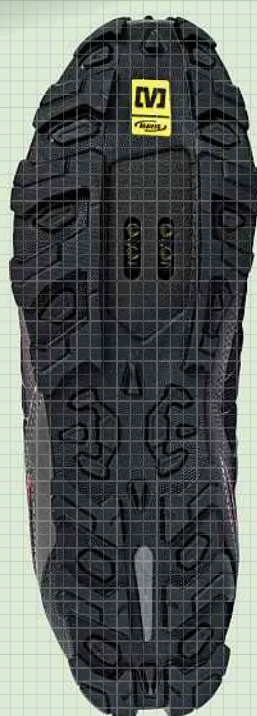
WALKING  
CYCLING  
VALUE

OVERALL  
7/10

## Mavic Cruize £70

Mavic calls this a 'go anywhere shoe' and we won't disagree. Getting the cleat, pedal and shoe to play along was a doddle. Once bolted on, the hiking-style sole totally shields the cleat, preventing it from striking the ground. Combined with a readily flexing sole, walking was a pleasure. Laces may seem like a low-tech solution compared to the ratchets employed on most race shoes, but they're not. The ones here pull tight with ease, evenly and comfortably spreading tension across the shoe and there's even an elastic loop to keep them from tangling in the chain. Once clipped in, the heel support felt familiar, while the area above the cleat was unyielding, spreading out the weight on the pedal and keeping our feet happy on longer rides.

mavic.co.uk



### Rating

FIT  
COMFORT  
VALUE

OVERALL  
9/10



## Vittoria Iride

£130

Specifically designed to be as comfortable off the bike as on, these shocking yellow shoes certainly turned a few heads. Taking their style cues from cycling's golden era, in this colour you can't really wear them as anything other than a pair of statement shoes – although in a more muted hue they could potentially work as part of a casual outfit. Stiffer than the more trainer-like options we tried, they're still not as rigid as a conventional road bike shoe and you notice the flexibility of the sole and the upper when riding. Although comfortable when walking, the laces mean you can't adjust them on the bike, making them fine for pottering around, but rubbish for racing. Made in Italy, their perforated design helps to keep your feet cool, so avoid wearing socks that clash. And rain. And people who suffer from migraines. [chickencycles.co.uk](http://chickencycles.co.uk)

### Rating

FIT	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
COMFORT	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
VALUE	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

OVERALL

7

10



## DZR Minna

£95

Looking and feeling exactly like a discreet street-style trainer, the first thing you'll notice about the Minnas is how heavy they are, not that that's going to matter for the type of riding they've been designed for. Very much a shoe made for the city, with full-grain leather and a gum rubber sole, we can't imagine anyone twiggung these as cycling shoes. It's only the reflective tabs on the heel that deviate from the all-black colour scheme. Their amply padded uppers are comfy, although these are not nearly as breezy as synthetic alternatives. Still, this isn't a problem on short trips and it's likely to be welcome when winter rolls around. Stylistically a big hit with the team, for riding short journeys and going undercover in the city, these are our pick of the bunch. For longer rides, choose the Mavics instead. [alwaysriding.co.uk](http://alwaysriding.co.uk)

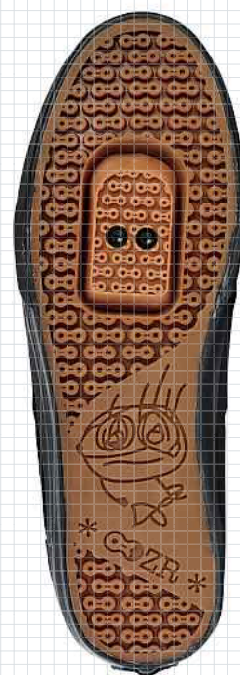
### Rating

WALKING	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
CYCLING	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
VALUE	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

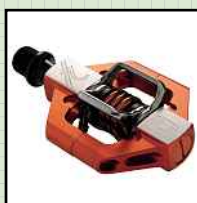
OVERALL

8

10



## THREE COMPATIBLE PEDALS



### CRANKBROTHERS CANDY 2

£75, [extrauk.co.uk](http://extrauk.co.uk)

The brass cleat makes for smooth entry and exit, but tension is non-adjustable. Needs more maintenance than some other pedals.



### SHIMANO M540

£50, [madison.co.uk](http://madison.co.uk)

Adaptable tension, long-lasting bearings, readily available spares and a low price. There's very little reason to choose any other pedal, come to think of it.



### RITCHEY PRO MICRO ROAD

£72, [paligap.cc](http://paligap.cc)

Super-light, yet robust. Only one side to clip in to – but the tension is adjustable. Perfect when the going gets rough. 🚲



# SWAG BAGS

Equally at home on the daily commute or off-road adventures, these bags will ensure your valuables travel in safety and style



Beloved of cycle messengers and those who like to take their style cues from them, these thoroughly modern backpacks are ideal for those occasions when a jersey pocket stuffed to bursting point won't do. Whether you need to lug your laptop and tablet about on the daily commute or are setting off somewhere more exciting, a bag designed to wear

on your bike will keep you comfortable and your cargo secure as well as cutting a stylish dash through traffic.

A couple of years ago, a cycling messenger bag meant a 'postie' – something with a single strap that ran across the chest, but while some still prefer a this simple design for quick access, we reckon that the stability and comfort of a double-strapped design is hard to beat.



## Inside Line Equipment Default

£185 Size: 25 litres

It may be the most expensive backpack in our line-up, but the Default goes a long way to justifying the investment with a host of features and high-quality construction in hard-wearing 1,000D Cordura fabric. With its weatherproof lining and roll-top closure, the 25-litre main compartment is perfect for carrying a complete change of clothes (including shoes) to the office, with room to spare. The plentiful and easily accessible outer pockets (one zipped) are ideal for smaller items and there's a sleeve pocket for a 17-inch laptop. For such a bulky piece of apparel, it's surprisingly comfortable on the bike, no doubt thanks to the generous padding and broad shoulder straps, plus chest and waist straps to keep it stable, as well as a few internal reducing straps to stop smaller loads bouncing around. It's a lovely option, but expensive – definitely a case of you get what you pay for.

vamperformance.com



### Rating

COMFORT  
FEATURES  
VALUE

OVERALL  
8/10

## Ortleib Velocity Bag

£81 Size: 20 litres

As the maker of the panniers that carry most of Germany's mail, Ortleib knows how to make a tough and functional stuff sack. The Velocity's lack of exterior pockets means you'll have to open the bag each time you need to retrieve an item, which can be annoying. However, a basic organiser is located just inside the roll-top closure, to keep keys or other small items from becoming jumbled among your other kit, and it's possible to add a huge range of accessories, like dividers or additional pouches. Famously durable, Ortleib products are also easily patchable – like an inner tube – should you wear them out. The bag is extremely comfortable, even when stuffed to the brim with bike kit and spare jumpers as simple chunks of dense foam placed against the back provide excellent padding, while the gaps between them allowing air to circulate. A stylish, extremely tough bag for all seasons

lyon.co.uk



### Rating

COMFORT  
FEATURES  
VALUE

OVERALL  
8/10





## Giro Commuter 2.0

£150 Size: 28 litres

Welded seams and waterproof black material give the Giro a futuristic look. A dedicated D-lock holster on the rear is easily accessible, cutting down the time it takes to secure your bike and ensuring the lock doesn't weigh too heavily on your back. Two waterproof zipped side pockets and a plush lined compartment for electrical gadgets (that's also waterproof) are all accessible from the bag's exterior. Inside, a padded divider provides secure transit for documents or a laptop. It's not the most breathable, but the dimpled padding does a good job of protecting your back from any lumpy cargo. A sizable 28-litre capacity can be tailored via a roll-top closure, and loops on the back and straps are perfect for attaching lights – or a carabiner holding keys or tools for the full messenger look. To the untrained eye, it may look like you're lugging around a sack of coal, but the capacious Giro carries a ton of stuff in style.

zyro.co.uk



### Rating

COMFORT  
FEATURES  
VALUE

OVERALL  
7/10



## Rapha Backpack

£150 Size: 18 litres

Small in size, but big on comfort, this smart-looking backpack crams in a bewildering array of differently sized pockets. It'll suit meticulous packers who believe in 'a place for everything and everything in its place' rather than those happy to just cram their things in. With so many different cubbyholes, it took us a few weeks to discover the fetching hi-viz pink waterproof cover neatly hidden in its own pocket. Once unzipped, the whole front of the pack flips open allowing easy access to its myriad compartments. Chief among them is a secure-feeling 15-inch padded laptop compartment and a soft-lined sunglasses pocket. At first glance, there's very little that gives this bag away as a cycling-specific product, but once on the bike, it's brilliantly secure and comfortable. This may be expensive for what's quite a small bag, but if you fancy splashing out, its stylish looks mean you'll get plenty of use out of it away from the bike.

rapha.cc



### Rating

COMFORT  
VALUE  
SCORE

OVERALL  
8/10

## Polaris Aquanought

£70 Size: 30 litres

Another hugely versatile option, Aquanought's vast main inner cavity is complemented by an externally accessible and handily D-lock sized outer pocket, though there are no additional dividers or stash pockets. Made of extremely tough material, the roll-top closure ensures the whole package stays watertight. The top corners connect via adjustable straps to their lower counterparts. It's very secure but does leave you with another set of straps to flap around. Secured at both the chest and waist, there's little chance of the bag moving around unless you do a front somersault. The padding on the back is comfy, but doesn't insulate the rider from badly packed and pointy items quite as well as that on the Ortleib or the dhb (see next page). If you aren't a fan of fluoro kit, it's also available in monochrome black or white – but the fluoro option should boost visibility, as will the swatches of reflective material and integrated light loop.

polaris-bikewear.co.uk



### Rating

COMFORT  
FEATURES  
VALUE

OVERALL  
7/10





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DIFFERENT SIZES.  
**VERSATILE. DURABLE.**



## ROAD DRIVE

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This is Engineered Design.

**DESIGNED FOR ROAD:** *Compact and lightweight design for high pressure tyres and capable of reaching 160psi / 11 bar*

**EASY TO USE:** *ABS Flex Hose easily attaches to Presta valves to protect from damage caused by "rocking" the valve stem during pumping*

**BUILT TO LAST:** *CNC machined aluminium body, piston and handle*

**MOUNTABLE:** *Includes aluminium frame mount*

**3 SIZES AVAILABLE:** *S- 180/82g • M- 216/96g • L- 283/110g*

**SRP:** *£37.99*



**LEZYNE**  
Engineered Design

YE  
AR

8

**You Tube** Product Video

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## Ogio Commuter Pack

£90 Size: 20 litres

In days of yore, suited-and-booted businessmen would have carried a leather briefcase on the train to work; the Ogio Commuter Pack is the 21st-century descendant of that essential classic. Not only does its slimline profile look great and feel comfortable on your back as you ride your fixie to the office, it has pockets for every conceivable modern media essential: a water-resistant 15-inch laptop sleeve, a dedicated iPad pocket, and another for your mobile (up to iPhone 5/Galaxy S3 size). There are even holders for good old-fashioned pens and pencils. The main compartment is large but shallow, so it's better for flat items (copies of *BikesEtc*, for example) than bulky ones such as shoes. If anything, there are perhaps too many pockets as we occasionally struggled to find our keys. But that's a nice problem to have, and this is a well-designed commuter accessory that scores highly for both functionality and designer looks. [madison.co.uk](http://madison.co.uk)



### Rating

COMFORT	██████████
FEATURES	██████████
VALUE	██████████

OVERALL  
9/10

**BikesEtc**  
**BEST IN TEST**



## ACCESSORISE ALL AREAS

Essential kit to put in (and on) your backpack

### BONTRAGER FLARE

£45 [bontrager.com](http://bontrager.com)

This light features a stiff metal clip that makes it perfect for fitting onto a backpack, ideal if you find yourself regularly swapping between bikes.



### SUGOI HYDROLITE PACKABLE JACKET

£75 [cyclingsportsgroup.co.uk](http://cyclingsportsgroup.co.uk)

Compact yet useful, a packable rain jacket is something every cyclist should carry. If you're commuting, it makes sense to have one in your bike bag all the time, as you never know when a sudden, unexpected shower might catch you out.

### OVERADE PLIXI

£80 [upgradebikes.co.uk](http://upgradebikes.co.uk)

Like a *Transformers* toy for adults, this clever collapsible helmet takes up half the space of a conventional lid once folded. A hard shell means it's up for some rough and tumble – perfect for bike-share schemes or holidays.



## dhb Waterproof Rucksack

£50 Size: 25 litres

At the other end of the price spectrum, you might expect something that looks a bit cheap and doesn't perform as well as its more expensive neighbours. Well, you'd be wrong. This rucksack looks way better than its modest price tag suggests – the smart grey and black colour scheme, quality waterproof materials and boxy shape making it look a lot like bags more than twice its price. At 25 litres, this pack is cavernous when you need it to be, and thankfully, it's remarkably stable too. If you do find yourself running for a bus, so long as the waist and chest straps are done up, it remains rock solid. On the odd occasion when space isn't needed, the dhb's roll top means its volume is easily reduced. The shoulder straps aren't super comfortable, but once set up, they stay put and don't cause a fuss. For the price, we'd be hard pushed to give the dhb less than top marks. [wiggles.co.uk](http://wiggles.co.uk)



### Rating

COMFORT	██████████
FEATURES	██████████
VALUE	██████████

OVERALL  
8/10

**BikesEtc**  
**BEST VALUE**





**Brooks Pickwick****£165** Size: 24 litres

You'll buy this bag because it looks cool, and there's nothing wrong with that. Sturdy cotton construction and metal and leather fastenings contribute to its retro style that looks debonair both on and off the bike. Luckily, the Brooks isn't a case of fashion over function. While not as high-tech as some other options, it's still solidly waterproof. Its lower section features a zipped pocket for tools or a lock, while an integrated stash pocket keeps small stowables close at hand. The roll-top closure makes adjusting capacity easy and is great for carrying outsized items. With no padding it's not as comfortable or breathable with heavy loads as some other bags here, but with knockout looks, that's easily forgivable. If you regularly lug about tons of stuff, you might want to consider something more comfortable stuffed to capacity like the Ogio and dhh bags, but in most instances, the Pickwick really delivers.

extrauk.co.uk

**Rating**

COMFORT

FEATURES

VALUE

OVERALL

6

10

**Henty Wingman****£135** Size: 14 litres

Perfect for riding to weddings, job interviews or court appearances, the Wingman is a little different to the other backpacks here in that it's a suit bag designed for cyclists. Simply pop your outfit on the dedicated hanger and slip it into the zippable inner sleeve. The hanger's head slots through the outside of the bag, pinning the shoulders of your jacket in place, ensuring it doesn't get creased. Wrapped inside the suit bag and secured via a pair of buckles, sits a spacious holdall – perfect for stashing a change of shoes, toiletries and towel, or whatever you normally carry. Although neat, the array of straps can be a bit baffling, so it's nice to find a range of pockets accessible without unfolding the bag. A decent-sized pocket at the base, which also incorporates a padded laptop holster, houses a neat waterproof cover if you get caught in a downpour. A great idea, neatly executed. 

henty.cc

**Rating**

COMFORT

FEATURES

VALUE

OVERALL

8

10





Lizzie Armitstead  
Cycleplan Ambassador

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# MOOTS

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# SUNDAY BEST

Protect your posterior with a good pair of bibshorts and stay comfy as you ride



Potentially the difference between a great day in the saddle and finding your ride to be a massive pain in the backside, allocating a bit more of your cycle clothing budget to your bibshorts could be a very worthwhile investment. The hope is that paying a little extra will guarantee a smoother and more comfortable ride, providing greater defence between bumps in the road and your delicate bottom; quality materials and an impeccable fit are to be expected as standard, and the higher cost should also bring a dash of extra style. We tried 10 pairs of shorts – seven for men, three for women – to find out if they live up to the promise of their pricetag.



## Rating

PAD  
CUT  
FEATURES

OVERALL  
7  
10

 **Sugoi**  
**RSE**

£130

You can tell these shorts are fully pro because there's a pocket for your race radio stitched into the back of the straps. There's not a seam to be found that hasn't been flat-locked, left raw-edged or flush-bonded, and as a consequence, these are some of the most closely fitting shorts on test. Their racy intentions mean they're a little restrictive when standing, although once in position on the bike, everything falls into place. The multi-density pad is aerated to keep you cool as a chilled cucumber, but we found the noticeable variations in the amount of cushioning less comfortable than the more graduated profile of some other chamois. Otherwise, these make a decent race-fit choice.

[cyclingsportsgroup.co.uk](http://cyclingsportsgroup.co.uk)



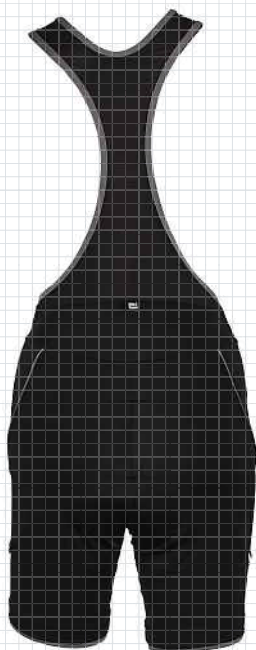


## ♀ Santini Mearsey

£80

Named after the illustrious Australian track racer Anna Meares, these good-looking bibshorts are a lesson in near misses. The padding is contoured in all the right places, and very comfortable, but positioned too far back. This meant we were constantly shuffling around on the bike and were reluctant to wear them for longer rides. The leg grippers were very tight in comparison to the Lycra panels – almost as if the gripper was a size smaller than the shorts themselves – and the straps, although wide and comfortable, felt very flimsy where they attach to the short, so they felt like a good pull would rip them off. All a bit frustrating.

fisheroutdoor.co.uk



### Rating

PAD

CUT

FEATURES

OVERALL  
6/10

**BikesEtc**  
**BEST VALUE**



## ♂ Chapeau Pave

£120

Chapeau's pave shorts come with three choices of pad, shaped to suit different riding styles. We tested the red version, aimed at racy types – the smooth, variable-density chamois is thicker towards the front – and comfortable with it. High panels are made of dense material, but the gentle compression provides excellent support for tired muscles on long rides. Wide, silicone-backed leg grippers also do a good job without cutting off circulation. Broad mesh shoulder straps and a full-mesh back panel provide good all-round support, while the low-key branding and subtle reflective tabs ensure you could happily match these classy shorts with even the most garish jersey.

chapeau.cc



### Rating

PAD

CUT

FEATURES

OVERALL  
7/10



## ♂ Vermarc Colora PRR LD

£100

Few technical features are going on here, just an excellent (if tight) fit, great fabric and a chamois that will suit most riders. Vermarc reckons they're ideal for long-haul rides, but we'd happily use them over any distance. Despite their endurance billing, the padding is on the thinner side. Largely flat and without obvious changes in density, there's little chance of it getting skewed or developing uncomfortable pressure points. The lightweight fabrics on both legs and straps combined with snag-free grippers make these a great choice in hot weather, while the rainbow cuffs and reflective detailing add a touch of flair.

chickencycles.co.uk



### Rating

PAD

CUT

FEATURES

OVERALL  
9/10





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moda

GIANT



FORME



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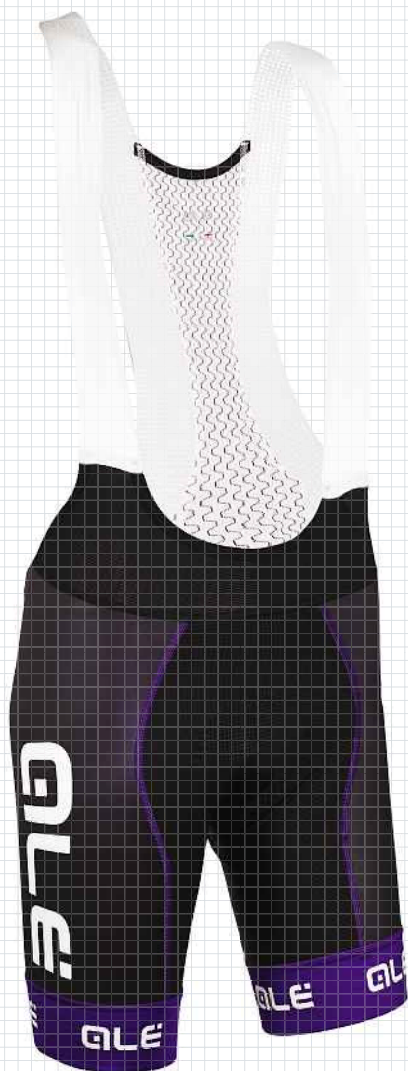
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Grafham Cycling, Marlow Car Park, Grafham Water, Cambridge, PE28 0BH Tel: 01480 812500

Fineshade Cycling, Top Lodge, Fineshade Woods, Northants, NN17 3BB Tel: 01780 440899

FOR DETAILS VISIT OUR WEBSITE AT [RUTLANDCYCLING.COM](http://RUTLANDCYCLING.COM)





### ♀ Ale PRR Barbados £95

Unusual styling will always split opinion, but it's not often you see purple cycling kit. Still, sometimes it's better to stand out than be a shrinking violet. The padding isn't the thickest on test, but is well-positioned and doesn't rub, which is a godsend when the temperatures ramp up. The grippers don't pull and the straps don't roll up either. One thing to watch out for is the race-fit Italian sizing – we had to size up and we'd recommend trying them on before buying if possible. Overall, a great pair of shorts for hot weather if the sportier cut suits your body shape.

[paligap.cc](http://paligap.cc)



#### Rating



OVERALL  
**8**  
10



### ♂ Gore Power 3.0

£100

Despite being the joint cheapest men's shorts on test, Gore's Power bibs still have plenty to recommend them. A lot of designers seem to think that riders are shaped like a Ken doll, resulting in everything down the front getting a bit squished. By contrast, Gore's Elastic Interface chamois has more room, meaning these shorts are comfortable front and back, with plenty of padding taking care of your sit bones. They're a little less sculpted in terms of fit than some of the more aggressively shaped bibs we tried, and the grippers on the leg cuffs were also less constrictive. Still, they're very comfy – if lacking the racier cut of their pricier rivals.

[goreapparel.co.uk](http://goreapparel.co.uk)

#### Rating



OVERALL  
**8**  
10



### ♂ Castelli Endurance X2 £120

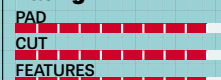
Castelli's shorts go easy on the padding. We're big fans of the Progetto X2 chamois, which wears its technical features lightly thanks to what its makers dub 'infinitely variable thickness'. In practice, this means that while there are different amounts of padding for different areas of your undercarriage, you'd be hard pressed to detect the edges between them. The straps are less rigidly structured than those on Castelli's most expensive shorts, and while this leaves them more prone to twisting, they're soft and comfortable. The cuffs, with subtle reflective detailing, were our favourites, staying secure without being too tight or irritating our mildly stubbly thighs.

[saddleback.co.uk](http://saddleback.co.uk)

**BikesEtc**  
**BEST IN TEST**

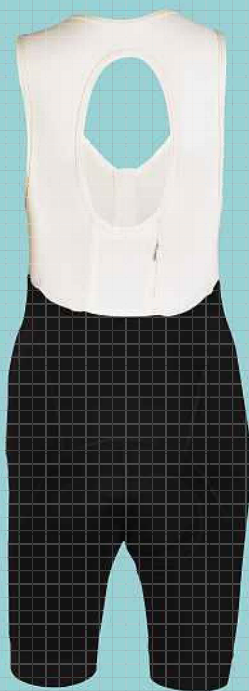


#### Rating



OVERALL  
**9**  
10





#### Rating



OVERALL  
9/10

### ♀ Rapha Classic Bibs

£160

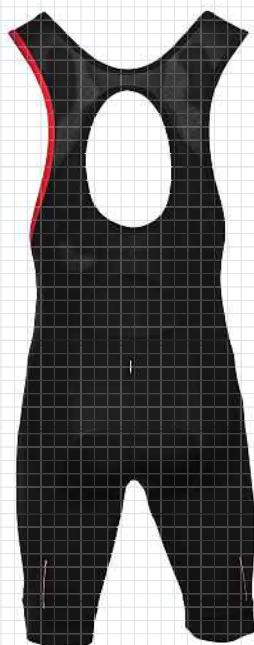
A few years ago, Rapha set out to bring the same level of care and quality of materials to its women's range as its men's clothing, and that goal has been achieved with these Classic Bibs. The padding is excellent, maintaining its comfort after long distances, and the grippers sit nicely on the thigh, preventing the dreaded 'sausage leg'. There are some downsides to the construction – the full-body zip can be awkward to get out of when it's time for a comfort break, and although the rear zipped pocket is a nice extra feature, you have to be a contortionist to reach it. These are small niggles on what has become our go-to short for our female testers. [rapha.cc](http://rapha.cc)



### ♂ Café du Cycliste Josephine

£116

Despite being named after a woman, these shorts are definitely for men. Years of hard-won experience tells us that if products fit properly off the bike, then they probably won't fit when you get on it – if you can get into them in the first place. Putting on the Café du Cycliste Josephine bibs is a bit of a palaver because the silicone leg grippers are so sticky you need the strength of ten men to pull them up. The legs are made of multiple panels that feel odd at first, but as soon as you get on the bike, all those feelings magically disappear – they blend into the background, like good shorts should, and leave you to get on with enjoying the ride. [cafeducycliste.com](http://cafeducycliste.com)



#### Rating



OVERALL  
8/10

### ♂ Sportful Total Comfort

£130

Pulling these on, it's clear the legs pack in far less stretch than you might expect as the whole thing feels very structured and gently compressive. Hopping onto the bike, the padding feels very thick at a full 18mm deep, but thanks to variable density and a series of aerating dimples, there's no sensation of it squirming around, meaning these shorts are super comfortable. Central panels, made of tough, abrasion-resistant fabric also stop saddle slide. The flat, brace-like straps sit flush to the wearer, joined at the base with a stretchy panel to neatly finish an exceptionally comfy pair of bibs. [c3products.com](http://c3products.com)



#### Rating



OVERALL  
9/10



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# PURE FILTH

Bit of a dirty weekend? Clean up your act with a quick squirt

Some folk relish the thought of spending hours lovingly cleaning their two-wheeled pride and joy, while others consider it to be something of a chore, preferring to leave all that muck and grime as a badge of honour for those gruelling miles endured in filthy conditions. But a dirty, neglected bike is far more likely to leave you sat on the roadside with greasy hands and the prospect of a long walk home (or, at best, an embarrassing phone call to the other half). Even if you're a fair-weather rider, it's likely you're going to need to clean your bike at some point. Whatever the case, a cleaning product designed to lift the grime and save on elbow grease is only a good thing. We cut through the marketing grime to find the best ones.





OVERALL  
7/10

5

**1 Muc-Off Nano Tech**

£8.50 Size: 1 litre

The bike cleaner that spawned an entire market segment – with an adjustable nozzle to deliver the newest Nano Tech formula. It's still an effective cleaner for all but the very worst grime, but it's slightly outclassed by some of the newer kids on the block. [muc-off.com](http://muc-off.com)

OVERALL  
7/10

7

OVERALL  
8/10

8

**3 Pedro's Green Fizz**

£4.99 Size: 470ml

Pedro's has always ensured its products are as kind to the environment as possible. Green Fizz is no exception and uses plant-derived ingredients to produce this excellent general bike cleaner, which also features a handy multi-spray trigger. [2pure.co.uk](http://2pure.co.uk)

OVERALL  
5/10

9

**5 Green Oil Green Clean**

£7.99 Size: makes 1 litre

Shipped as 100ml of concentrate that can be topped up with 900ml of water, Green Clean is also available in smaller refills. It's effective as a cleaner and also doubles up as a degreaser in its concentrated form, so wins extra points for versatility. [green-oil.net](http://green-oil.net)

OVERALL  
5/10

10

**7 Duck Smart Earth Mover**

£6.99 Size: 1 litre

A well-priced and impressively performing all-round cleaner that's safe to use on carbon and anodised parts as well as all other materials you're likely to find on a modern performance bike. However, it requires a good rinse to avoid a streaky finish. [duck-smart.com](http://duck-smart.com)

**9 Weldtite Dirtwash**

£5.99 Size: 1 litre

A cheap-and-cheerful bike wash that performs solidly and is only let down by a naff, poorly designed trigger. Pretty effective for general cleaning, especially if you keep on top of things, it struggles when the dirt and grime is really caked on. [weldtite.co.uk](http://weldtite.co.uk)

**2 Juice Lubes Dirt Juice**

£7.99 Size: 1 litre

Definitely the best smelling on test and 100% biodegradable, this cleaner is only let down by the same kind of flimsy trigger that's used by some others on test. That aside, it cuts through grime with extreme ease and leaves a decent finish behind. [velobrands.co.uk](http://velobrands.co.uk)

**4 Hope Shifter**

£5.99 Size: 1 litre

Though Hope is better known for CNC-machined trickery, clearly Lancashire has taught it a thing or two about cleaning dirty bikes. It's no replacement for a dedicated degreaser, but is effective on the oily stuff and comes in at a great price. Just don't leave it on for too long. [hopetech.com](http://hopetech.com)

**6 Purple Harry's Cleaner & Degreaser**

£7.99 Size: 1 litre

Claims to be both a cleaner and degreaser, but despite being pretty effective on greasy areas and spots of tar, it's still no match for a dedicated degreaser. [purpleharry.co.uk](http://purpleharry.co.uk)

**8 Morgan Blue Bike Wash**

£10.95 Size: 1 litre

Designed to be mixed in a bucket (one-part cleaner to 100-parts water) Morgan Blue is a really effective cleaner containing wax additives that leave the bike with an extra sheen. Perhaps that's why it's a firm favourite among many pro-racing teams. [windwave.co.uk](http://windwave.co.uk)

**10 Finish Line Super Bike Wash**

£7.99 Size: 1 litre (refill £6.99)

While not the most effective cleaner on test, the Super Bike Wash meets the highest standards for biodegradability. It works well on day-to-day grime, but struggles when things get oily and caked on. [madison.co.uk](http://madison.co.uk)



# RAISE THE BAR

Want a cheap speed boost? Aero bars will deliver the goods

Let's face it, Strava is turning us all into closet racers. If you're looking to shave some time off your favourite segment, or fancy racing your local club time trial, there's no cheaper way to improve speed than a pair of clip-on aero bars.

When riding at speed, aerodynamic drag is by far the biggest force you're fighting and these simple handlebar extensions help you

get tucked in to cut through the wind with ease. Over 10 miles, well set-up aero bars can save a minute versus riding the drops. And unlike integrated aero bars, it's easy to remove them to use the same bike for group rides.

We've tested seven sets for comfort, ease of fitting and to find out just how many seconds we can knock off our PBs...

## PRO Missile S-bend £100

It's hard to fault anything about the Missile aero bars from PRO, they're excellent. The 30-degree extension is a good length and the semi S-bend profile is exceptionally comfortable, reducing all pressure at the wrist. Their best feature, however, is that the arm pad is completely adjustable independently of the extension and the bar clamp – a real help in getting the reach right. The pads are also

adjustable in rotation, so you can set them at the perfect angle. The armrest is comfortable, with mid-density padding, and the curved profile provides good support. All the clamps are well made and secure without taking up too much room. The only downside is there's no hole drilled in the extension for internally routing bar-end shifter cables. [madison.co.uk](http://madison.co.uk)

### Rating

COMFORT  
ADJUSTABILITY  
WEIGHT

OVERALL  
9  
10

## SPEND YOURSELF FAST

In designing its new S-works Venge, Specialized spent time in both the wind tunnel and riding in the wild to determine which bits of kit could be holding the average rider back from aerodynamic perfection. Estimated savings are for a distance of 10 miles.

**SWAP JERSEY AND BIBS FOR A SKINSUIT**  
**Castelli**  
**Speedsuit, £200,**  
**[castellicafe.co.uk](http://castellicafe.co.uk)**



**RIDING UPRIGHT TO USING AEROBARS**



**SWAPPING A TRADITIONAL LID FOR ONE WITH A CLOSED SHELL**  
**Lazer Blade helmet + removable shell, £60, [madison.co.uk](http://madison.co.uk)**








## USE Boost Bar + Aluminium Extensions

### £115

Designed in the UK by West Sussex-based USE, the Boost Bar is unique, sharing some common features with the company's high-end time trial bars. The 'Rock'n'Roll' clamp securing the carbon arm pad is minimalist, using one 3mm allen key bolt to secure it, but we didn't have any issue with it slipping. The arm pads can be adjusted for rotation

and reversed to the inside for a narrow position, although they are a little small and not as supportive or comfortable as the ones found on the PRO or Deda bars. The extensions are drilled to allow internal cable routing, but were poorly anodised. Carbon extensions are available if you need a lighter option. [ultimatesportsengineering.com](http://ultimatesportsengineering.com)

#### Rating

COMFORT   
ADJUSTABILITY   
WEIGHT 

OVERALL  
**8**  
10

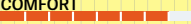


## Bontrager Race Lite

### £110

A very comfortable bar thanks to the highly angled ski-bend extension and large, well-padded armrests. One useful feature is that the angle of the armrest is adjustable, so you can match the pad to how your forearm wants to sit, which most bars don't allow. The drilling in the armrest also gives a big range in length to help get the reach dialled in; this helps makes up for a slightly shorter extension.

The clamps inspire confidence without being too clunky, and the comfortable arm pads are the thickest on test, although we did find the Velcro a little too effective – it removed the backing all in one go when we were setting up the bars. Overall, the Bontragers make a good choice with a reasonable price tag, but they're a little on the heavy side. [bontrager.com](http://bontrager.com)

#### Rating

COMFORT   
ADJUSTABILITY   
WEIGHT 

OVERALL  
**7**  
10

#### SWITCHING TO DEEP SECTION WHEELS

Pro-lite Bracciano  
Caliente, **£800**,  
[wiggles.com](http://wiggles.com)



#### STANDARD TO AERO FRAME

Specialized  
S-Works Venge  
ViAS, **£2BC**,  
[specialized.com](http://specialized.com)





## Token Alloy Aero Extensions

£40

The Token aero bars may not be the best on test, but at just £40 they make a great budget option. The extensions have a subtle S-bend profile that's comfortable, but may come up a bit short for taller riders, while the handlebar clamps are fairly agricultural, but perfectly functional. A real downside compared to more expensive options is their lack

of adjustability; the arm pads only have two width positions and three length options. The single bolt to secure the arm pad doesn't work 100% and we found it could be rotated loose, while the padding is soft and comfortable – but doesn't deal with sweat very well. A reasonable choice for the price. [i-ride.co.uk](http://i-ride.co.uk)

### Rating

COMFORT  
ADJUSTABILITY  
WEIGHT

OVERALL  
6  
10

## Deda Parabolica Uno

£77

These bar extensions come in three options – Zero, Uno and Duo. The 300mm Uno is the middle option and come up a bit short for our liking, both in overall length, and length after the ski-bend. A minor downside is their non-standard extension diameter, which means they're non-interchangeable with other brands. This also makes it harder to find bar-end plugs that fit, which are essential in the

case of a crash. Our test model didn't come with any, either. The clamps are neatly designed and well-made, but don't offer any rotational arm pad adjustment. However, as the arm pads are very comfy with good padding – as well as being the largest on test – this isn't a big deal. The Parabolicas are the lightest, too – so make an ideal choice for the weight-conscious. [chickencycles.co.uk](http://chickencycles.co.uk)

### Rating

COMFORT  
ADJUSTABILITY  
WEIGHT

OVERALL  
7  
10





## 3T Clip On Team £105

The 3Ts were the only bars on test with adjustable height. We were sent a set with carbon arms – identical to the alloy version (except for the price). The bars come with 10mm and 20mm stackers, allowing adjustment in 10mm increments up to 30mm. If you're not a very flexible rider, this will help you get narrow at the front without having to bend over too far. The clamps can also be reversed to

push the pads closer together. The curly extension helps to put the hand position at a really comfortable angle. However, we'd have preferred a slightly longer section for the hand – with a parallel arm, only three fingers made contact with the extension. However, the large and well-padded arm pads are really comfortable and provide a great deal of support. [3tcycling.com](http://3tcycling.com)

### Rating

COMFORT

ADJUSTABILITY

WEIGHT

OVERALL

7

10

## Profile Design T5+ £100

The T5+ is almost identical to the PRO Missile, but a couple of extra features make these bars the best on test. Like the Missile, the arm pad is adjustable independently of the handlebar clamp, meaning greater flexibility. Some extra thought has been given to the handlebar clamp, which has upward-facing bolts; this makes them much easier to install and adjust as you can see what you're

doing and they're clear of the cables. It's a small, but useful feature if you regularly take the bars on and off. The single-angle ski-bend extensions are comfortable and relieve stress on the wrist compared to a straight extension, and two slots mean you can internally route cables for bar-end shifters if you wish, which means they make a pretty versatile option, too. [madison.co.uk](http://madison.co.uk)

### Rating

COMFORT

ADJUSTABILITY

WEIGHT

OVERALL

9


10

## ASSUME THE POSITION

Set up your aero bars correctly for maximum gains

Aero bars work by getting you lower, longer and narrower – reducing your frontal area so you punch a smaller whole in the wind. Setting them up can be a black art when it comes to finding the best balance of speed, comfort and handling. When setting up your aero bars the three main points to dial in are

height, reach and width. A perfectly flat back is unachievable for most, but an angle 20-25° from the horizontal is a good target. Reach should be set so that your forearms are roughly perpendicular with your torso. Longer is usually faster, but it's harder to sustain. Setting the width is often controlled

by how flexible you are, but narrower is generally faster. Using a turbo trainer and a full-length mirror can help improve your position (as can asking someone to take a picture of you). Finally, angle your saddle down a little to help relieve the soft-tissue pressure when you're tucked in for speed. 







# WHERE THE ROAD ENDS

Fancy a break from the road? Become reborn as an off-road warrior with this month's fun-fuelled foursome. These adventure bikes pack a ton of wide-tyred exploratory thrills to help you get lost in the thick of it

**WORDS ANDY WATERMAN**

**E**very bike on test this month offers an opportunity to keep going, no matter how inhospitable your route becomes. Americans have dubbed them 'gravel bikes' and with plenty of quiet, picturesque logging roads in the US, they make lots of sense. With wide tyres (40mm is typical), disc brakes, drop bars and road gearing, they're fast like a road bike but as versatile as mountain bikes. But do they make much sense in the UK?

We think they do. Even though we're based in central London, adventure bikes allow us to escape the confines of the M25 using traffic-free routes such as canal towpaths and bike lanes. Once in the countryside, dead ends disappear and you just keep going, using the ancient bridleways and byways that predated black-topped roads.

Still wondering what's the difference between adventure and cyclocross bikes? Well, cross is a race discipline, held on short, muddy circuits;

speeds rarely top 20mph and pedalling is a necessary evil almost all the time. With these bikes, we're looking for a longer wheelbase and lower bottom bracket than a cross bike to aid high-speed stability; and we're also after greater tyre clearance. We want the kind of bike that rolls fast and smooth on the road, but still feels confident on loose and slippery surfaces.

We don't know which one is the best yet, but we're hoping to have a lot of fun finding out...

## BIKES ON TEST



SPECIALIZED DIVERGE  
COMP SMARTWELD **£2,000**



COTIC ESCAPADE  
**£1,600**

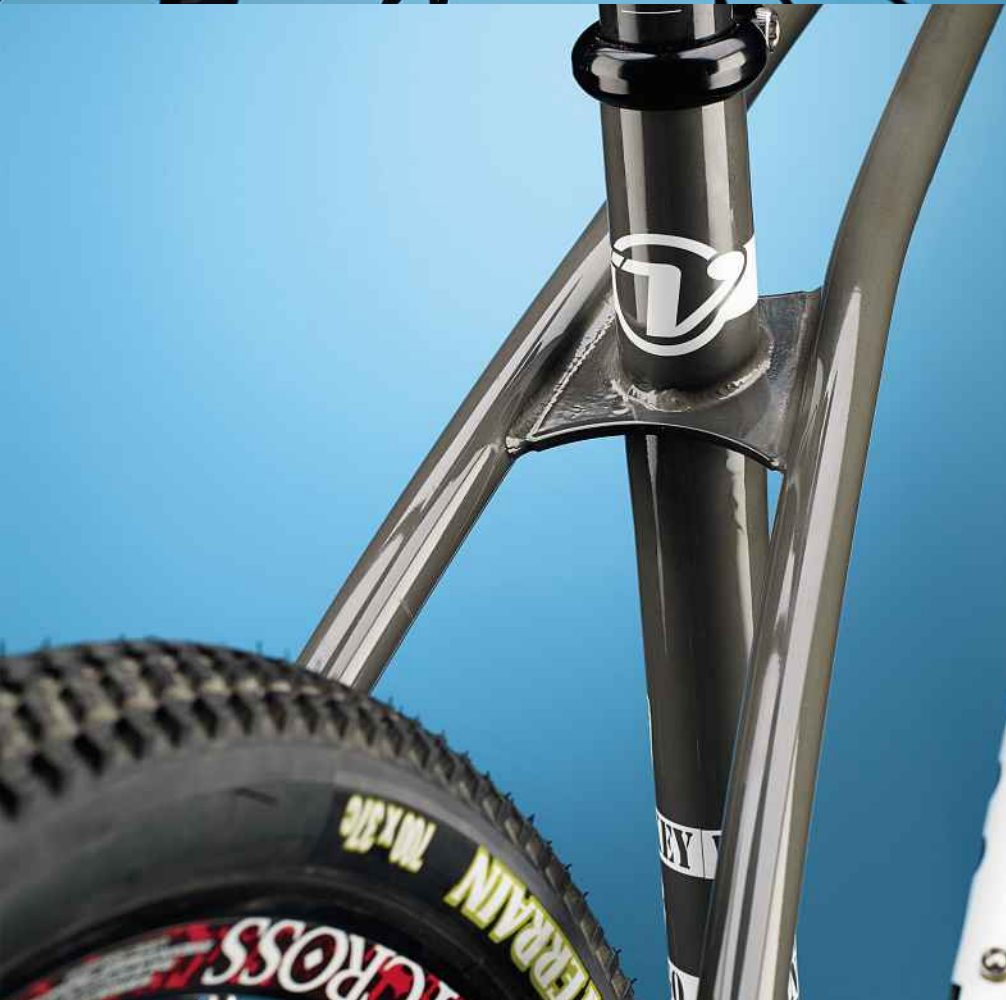


KINESIS TRIPSTER ATR  
**£1,500 (frame & fork)**



VAN DESSEL WTF  
**£1,900**





## HOW WE TEST

When it comes to testing bikes, we don't take anything the manufacturers tell us as gospel: the first thing we do when a new bike arrives is to take its measurements and compare our findings with the geometry stated. We also compare the spec with what is advertised – has anything changed?

With the seat and bars moved into roughly the correct positions, we head out to ride a few laps of our local park loop to fine-tune the set-up before the first big test ride. Bigger rides consist of short, sharp climbs, longer seated efforts, descents and a variety of road surfaces.

Every aspect of the bikes' handling and performance is assessed and scored according to our detailed criteria, and then the bikes are passed around the team for an all-important second opinion. Finally those opinions, scores and measurements are collated into the comprehensive reviews you're about to read.

### THE OVERALL RATING FOR EACH BIKE IS BASED ON THESE ELEMENTS...

#### FRAME

Our in-house testing questionnaire rates frames out of 30, based on geometry, on-road feel, stiffness, compliance, finish and intended use.

#### COMPONENTS

We rate components out of 20, based on groupset and finishing kit – great bars and stems will be marked down if they're the wrong size for the frame.

#### WHEELS

We rate the wheel and tyres package out of 20, weighting it towards the wheels: tyres come and go but wheels are a more expensive element to replace.

#### THE RIDE

Rated out of 30, we take into account ride quality and also value – does the bike do what we expect of a bike at this price? The best exceed expectations.





# Specialized Diverge Comp Smartweld £2,000

Fast on the tarmac, fun on any terrain



## About the bike

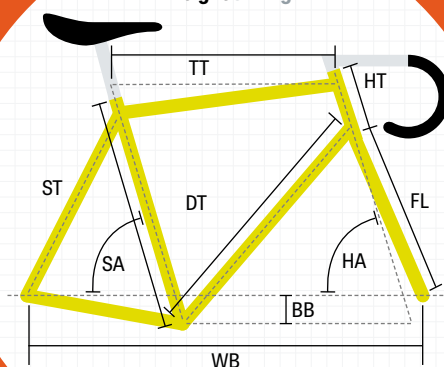
Specialized launched the Diverge platform to much fanfare in the middle of 2014, making it one of the first in the new wave of adventure road bikes. The videos advertising the new product line summed up the style of riding, with Lycra-clad riders seen zipping along tarmac roads, gravel, and over fences to explore singletrack and take in actual mountain summits, not just their tarmac passes. We're as suspicious of marketing hype as anyone but this looked like a world of fun – does the Diverge live up to that promise?



## GEOMETRY

	Claimed	Measured			
Top tube (TT)	548mm	543mm	Head tube (HT)	140mm	137mm
Seat tube (ST)	466mm	469mm	Head angle (HA)	72°	71.5°
Down tube (DT)		608mm	Seat angle (SA)	73.5°	73.4°
Fork length (FL)		395mm	Wheelbase (WB)	1000mm	1004mm
			BB drop (BB)	75.5mm	76mm

Size tested 54  
Weight 9.47kg







## SPEC

### FRAME

Specialized E5 Aluminium, tapered head tube, BB30, Zertz carbon fork

### GROUPSET

Shimano 105

### BRAKES

Shimano BR-785

### CHAINSET

Praxis Works TURN Zayante, 50/34

### CASSETTE

Shimano 105, 11-32

### BARS

Specialized shallow drop

### STEM

Specialized Comp Multi

### SADDLE

Specialized Geometry Phenom Comp

### SEATPOST

Specialized CG-R carbon

### WHEELS

AXIS 3.0 Disc

### TYRES

Specialized Roubaix Pro, 32c

### CONTACT

specialized.com

## The frame

Specialized has a long and distinguished history working with aluminium and the E5 alloy used here is the same material found on the firm's £7,500 S-Works Allez. The geometry is slightly different, though, as the Diverge has a deeper bottom-bracket drop, which lowers your centre of gravity and makes the bike more stable at speed. It's also 22mm longer than an equivalent Specialized road

bike thanks to its elongated wheelbase. Some of this extra length is due to the clearance needed for the bigger tyres and disc brakes, and some has been specifically dialled in to help improve the bike's handling on unpredictable surfaces. For years, Specialized has relied on its Zertz bumpers to help dissipate road buzz, and the Diverge features these handy shock absorbers on its seatstays and fork. We're not convinced they can provide much benefit

attached to an aluminium tube – at least not in the same way as they can when built into a carbon frame. Still, the carbon fork works well, soaking up road vibrations like a sponge. Specialized claims sufficient clearance for 35mm tyres, but even bigger ones are possible. We were pleasantly surprised at how aggressive the riding position turned out to be; this bike can be as easily set up for going at speed as it can for riding in comfort. ➔



Specialized's Smartweld tech is tidy, while the carbon fork with Zertz implants soak up road buzz like a sponge

Components

All the Shimano parts on the frame work faultlessly, but it's what we've come to expect of both the 105 components and BR-785 hydraulic disc brakes. The Praxis Works oversized BB allows a chainset with an oversized spindle to run in a threaded bottom-bracket shell (which is good if you hate creaks but like stiff cranks), and the gear range is perfect. However, it's the Specialized components here that really shine through, from the bar tape to the seatpost. First up, there's an offset spacer that slots on the steerer under the stem – rotate it and the angle of the stem changes. This means you have four potential stem angles available if you're willing to flip it. Secondly, the CG-R carbon seatpost, with its Z-shaped head and rubber insert, provides exceptional comfort, flexing visibly to provide a level of compliance no frame on its own ever could. Lastly, the bar tape is great, and we happily rode without gloves even when we ventured off road, risking nettle stings.

Wheels

The hubs on this bike aren't remarkable but they work perfectly laced to a pair of excellent, wide rims. This is the way we'd prioritise things – standard hubs, good rims. The tyres are Specialized's own Roubaix Pro, a popular tyre among commuters in its 23 and 25mm widths, but it's a fatter 32mm here. There's no tread pattern to speak of, but the huge volume and good width provide significant levels of traction, even when we found ourselves on really muddy bridleways. What's more, with that roadie-but-fatter profile comes superb straight-line speed and on-road manners. You could ride a chain gang on these tyres and still keep up.

The ride

The Diverge is the closest to a traditional road bike of any of the adventure bikes on test. The tyres are slick, the position is instantly familiar and the gearing is a bog-standard 2x11 set-up, with proper big gears at the top end for all-out speed, and plenty at the low end to get you up the steeper climbs. Specialized has the Crux range for cyclocross, and the AWOL line for adventures and touring, so the Diverge range could seem a little superfluous in theory. Hop on and get riding though, and it's a revelation. On the road,

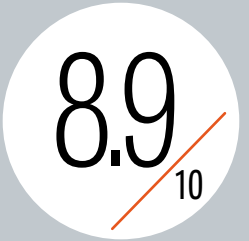


it picks up speed like any regular slick-tyred road bike, but heading into suburbia, we found a strange thing happening – we started to see speed bumps as launch pads and began gleefully getting both tyres off the ground. Onto the gravel canal towpath that heads from London's Olympic Park up to Hertfordshire, we were again amazed at the speed. With a clear view ahead, we were touching 40kmh without really trying. As the terrain deteriorated, we expected to find the limits of the slick tyres pretty quickly, but even at 75psi they didn't let us down, and although they bounced the bike around a bit, the CG-R seatpost and Zertz-equipped fork proved an effective combo at keeping us comfortable. Within a few hours of riding, we began wondering that if you owned a Diverge if you'd need a road bike too. The Diverge can go almost as fast on the road, and if you spot an enticing shortcut, it's yours for the taking. 🚲

RATING

- FRAME**  
Longer wheelbase helps stability at high speeds
- COMPONENTS**  
Offset stem spacer and carbon seatpost shine
- WHEELS**  
Quick-rolling and smooth with fantastic traction
- THE RIDE**  
Fast and fun – it makes you smile like a loon

OVERALL



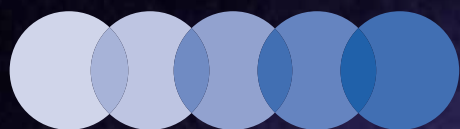
Own a Diverge? You won't need a road bike – it's almost as fast and far more versatile



The Diverge comes with Specialized's CG-R carbon seatpost with its Z-shaped head and rubber insert (above); plus Shimano BR-785 disc brakes (right)







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# Cotic Escapade

£1,600

Can this Sheffield steely cut it with the big hitters?



## About the bike

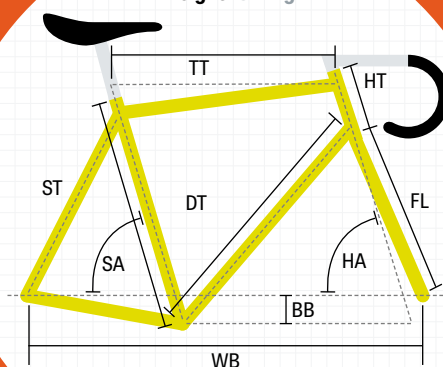
Sheffield-based firm Cotic has been building bikes since 2002 when it launched the Soul – a new breed of mountain bike frame which was meant to be more fun to ride than a traditional cross-country race bike while still being quick and efficient. That's exactly the sort of thing the Escapade intends to do for the world of drop-bar riding, so the frame angles are more relaxed than a road bike, there's clearance for tyres as wide as 46mm, and sticking to a lightweight build hasn't been a priority when creating it.



## GEOMETRY

	Claimed	Measured			
			Head tube (HT)	145mm	145mm
Top tube (TT)	540mm	535mm	Head angle (HA)	72°	71.3°
Seat tube (ST)	480mm	480mm	Seat angle (SA)	73°	72°
Down tube (DT)		595mm	Wheelbase (WB)		994mm
Fork length (FL)	400mm	400mm	BB drop (BB)	60mm	62mm

Size tested Small  
Weight 10.71kg







## SPEC

### FRAME

Custom butted Cotic Fe Cromoly, chromoly fork

### GROUPSET

Shimano 105

### BRAKES

Shimano BR-785

### CHAINSET

Shimano 105, 50/34

### CASSETTE

Shimano 105, 11-32

### BARS

FSA Vero Compact 440mm

### STEM

Cotic

### SADDLE

Cotic

### SEATPOST

Cotic

### WHEELS

Deep-disc rims, cartridge-bearing hubs

### TYRES

Continental Sport Contact 2, 35c

### CONTACT

cotic.co.uk

## The frame

Cotic describes the Escapade as a 'drop-bar life bike' – think everything from commuting to weekend roadie blasts with the added versatility of not being tied to the tarmac. The frame and fork are available for £349 in a choice of two colours – yellow or the remarkably handsome matte duck egg, as seen here. The dropouts, being horizontal (like a track bike) allows you to run it with an internally

geared hub or as a singlespeed option. The frame is made of Cotic's own Fe steel blend and its tubes are butted to save weight and improve ride quality with bosses for mudguards and pannier racks. Available in small, medium or large, our 1.77m (5ft 10in) tester opted for the smallest option based on its claimed 54cm virtual top tube. Cotic suggests the medium is ideal for riders between 1.73m and 1.8m tall (5ft 8in–5ft 11in). While the reach and saddle-to-bar

drop felt great on the small, we did notice a little toe overlap with the front wheel. The 62mm bottom-bracket drop means you're 15mm higher off the ground than some of the other bikes on test, and that makes a real difference when riding as you feel a lot more on top of the bike than nestled between its wheels. The extra height is useful if you run the bike fixed and need to pedal through corners, but also makes it less versatile on mixed terrain. ➔



The frame is made of Cotic's Fe steel blend and has bosses for panniers and mudguards

Components

We really can't fault Shimano's 785 hydraulic brakes and shifters – the brakes work brilliantly and the gears shift perfectly. The more we use them, the better they feel – and the more we get used to the increased size of the hoods over non-hydraulic versions. They make riding over rough terrain and downhill on the hoods a real possibility. A 50/34 and 11-32 cassette seems like the right spread of gears for a bike like this, and it's always nice to get a proper 105 chainset. The own-brand saddle, seatpost and stem all work well. The bars are from FSA and sized at 44cm for all bike sizes. We like that – wider bars offer more control so are ideal for bikes designed for a wide variety of terrain. Lastly, the Escapade frame uses a standard 1.125in head tube which means using external headset cups. Cotic has specced a Cane Creek headset and we approve – it's a reliable, good-looking, classic threadless choice.

Wheels

Both front and rear wheels use 32 spokes with wide, deep-section, disc-specific rims matched to unbranded, but good quality cartridge-bearing disc hubs. The disc brake rotors are 160mm front and rear, which means powerful braking, and the hubs use normal quick-releases with a bolt-thru 9mm axle in the front for extra steering stiffness. Continental's 35mm Sport Contact 2 tyres weigh in at a claimed 520g each, compared to Kinesis's knobbly 40mm tubeless 530g cyclocross options. With two layers of puncture protection, we didn't experience any flats, but they're not very supple, negatively affecting comfort, feel and grip. You'll want a lighter set for special occasions.

The ride

At £1,600, the top-end Escapade is incredible value – it's rare to find Shimano's hydraulic brakes on bikes at this price, and it's even more rare for those bikes to look as good as this one. The matte duck egg blue paintjob is stunning and the whole look and feel of the bike is considerably more premium than the price tag suggests. We generally don't consider a bike's weight to be a primary concern, but with the Escapade, the weight – and particularly the weight of the wheels – does have a negative effect on the ride. Once



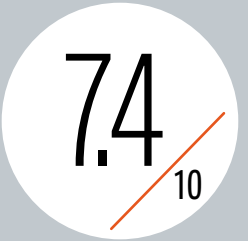
the road points uphill, you really notice the heavy tyres dragging you backwards. Fortunately, you could easily save 400g of rotating weight without breaking the bank – the Roubaix Pro tyres that come as standard on the Specialized would be ideal, and they cost around £25 each. The other concern with the Escapade is the geometry – you sit noticeably higher off the ground than on the bikes we liked best in this test. That allows you to pedal through corners or deep ruts if you head off road, but for the sort of loose gravel riding we love, we needed something with a lower centre of gravity to maximise stability at speed. So while Cotic has excelled at making a super-versatile 'life bike', it's less ideal for long, fast rides over varied terrain. We'd gladly use the Escapade as our daily commuter-cum-funster, and we'd also consider the £799 singlespeed version, as this bike really excels when riding in the city. 🚲



RATING

FRAME	██████████
Lovely finish, but a little high off the ground	
COMPONENTS	██████████
Great own-brand kit, 105 chainset, hydraulic brakes	
WHEELS	██████████
Good rims and hubs, but rather stiff, heavy tyres	
THE RIDE	██████████
Better as a commuter, not ideal for fast, varied terrain	

OVERALL




Shimano 785 brakes (above) are amazing at this price with 160mm rotors front and back and horizontal dropouts; the 1.125in head tube uses a Cane Creek threadless headset (right)



With its beautiful paintjob and steel frame, this bike is better in the city than it is off-road





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# Kinesis Tripster ATR

£1,500 frame & fork (£4,552 as tested)

Get smitten by this titanium labour of love



## About the bike

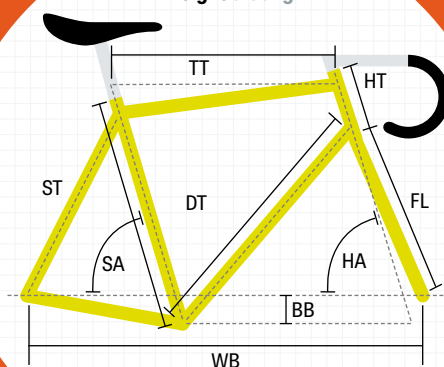
The Tripster ATR is the go-anywhere frame from Kinesis UK. Made from titanium, it has a reputation for comfort – and with ample clearance for 40mm tyres, we expected a cushy ride. Our test bike belonged to none other than Kinesis UK's marketing guru Rory Hitchens and no expense had been spared on its innovative build. Fancy the same thing? Simply discuss it with your local dealer ([kinesisbikes.co.uk/dealers](http://kinesisbikes.co.uk/dealers)) order a frame, then ask them to build it to your needs – the standard spec comes to a more modest £2,350.



## GEOMETRY

	Claimed	Measured			
			<b>Head tube (HT)</b>	210mm	209mm
<b>Top tube (TT)</b>	585mm	578 mm	<b>Head angle (HA)</b>	71°	70.4°
<b>Seat tube (ST)</b>	600mm	599mm	<b>Seat angle (SA)</b>	73°	73.2°
<b>Down tube (DT)</b>		642mm	<b>Wheelbase (WB)</b>	1062mm	1075mm
<b>Fork length (FL)</b>		400mm	<b>BB drop (BB)</b>	75mm	76mm

Size tested 60  
Weight 8.89kg







## SPEC

### FRAME

3AL/2.5V Ti frameset,  
TRP CX carbon fork

### GROUPSET

Shimano XTR Di2

### BRAKES

TRP Hylex

### CHAINSET

Praxis Works TURN Zayante,  
42t wide/narrow chainring

### CASSETTE

Shimano XTR, 11-40

### BARS

Genetic Flare

### STEM

Fizik Cyrano R1

### SADDLE

DMR Stage1

### SEATPOST

Kinesis Carbon

### WHEELS

Reynolds ATR Carbon

### TYRES

WTB Nano TCS, 40c

### CONTACT

kinesisbikes.co.uk

## The frame

Our size-60 test bike belonged to Kinesis's marketing manager Rory Hitchens. It's mammoth, with the longest wheelbase of any bike we've ever tested by a long way, but it was a great fit for our 185cm (6ft 1in) test rider, so that was a relief. Bikes across the size range get a long wheelbase and a 75mm bottom-bracket drop, which is exactly what we want to see on an adventure bike. 'Long and low'

tends to mean 'speedy and confident' over rough surfaces, and this differentiates adventure from cross bikes, which have better low-speed handling and can pedal through most corners. For many, a titanium frame is seen as the ultimate choice for a dream bike build as it's lighter than steel but more comfortable than aluminium – the holy grail. These frames last a lifetime. Kinesis has built the Tripster with normal quick-releases, a threaded bottom-

bracket shell, a 1.5in-1.125in tapered steerer tube and a 31.6mm seat tube. With rack and mudguard mounts, this is the kind of frame that would be as comfortable on a touring trip as an hour's rural ride from your home. The standard build features Kinesis's own carbon fork, but our bike had been upgraded at the business end with TRP's carbon disc fork which features internal cable routing and a bolt-thru axle. It's a worthy replacement. ➔



The 11-40 cassette works flawlessly with the XTR Di2 rear mech which has a clutch for smooth operation on rough ground

Components

Kinesis bikes are distributed through a nationwide dealer network, and you can either choose a standard build kit (£2,350) or build your own bike as we have here. The latter allows for a level of creativity unusual in complete bikes, so this Tripster is fitted with TRP's excellent Hylex hydraulic brakes, and their levers have been adapted using an official kit to house a Shimano satellite Di2 shifter. This operates a Shimano XTR Di2 MTB rear mech that's used instead of a road version as it can cover a huge gear range and features a clutch to stop it bouncing around over rough ground. The wide-range 11-40 cassette is needed because this bike only uses one chainring – a Praxis Works 42-tooth one, which alternates its thick and wide teeth to keep the chain secure without needing a separate chain retention device. It all worked perfectly through testing. Initially, we weren't too keen on the slightly flared handlebars from Genetic, but when used off-road they make a lot of sense, the wider arm position in the drops adding much-needed control.


Wheels

With money no object, this build includes a lovely pair of Reynolds carbon wheels. These are lighter, stiffer, and can be more resistant to impact than alloy rims, so we had no qualms about using them. Our tyres were the popular WTB Nano WCS – a 40mm-wide tubeless gravel option that's been making waves in the adventure-riding world. Run tubeless with sealant, we had no technical issues and found them to roll remarkably speedily – fast enough to average 24kmh on a 95km mixed road, towpath and bridleway ride – with predictable, stable grip when things got ugly.

The ride

With our usual testers being too short, we drafted a far taller reformed BMXer turned 24hr time-triallist to put the Tripster through its paces on our behalf. Despite its mammoth size, our tester said that the bike encouraged him to look at the environment in much the same way he did when he rode a BMX – hopping up and off kerbs and taking that cheeky shortcut through the park instead of going the long-way round. Out on the open road it had no problem keeping up with a group of slick-tyred roadies, and when



the tarmac ended, that long wheelbase and low bottom bracket gave our novice off-roader the confidence to keep up with the faster MTB riders. Some credit for that must also go to the fantastic brakes which have a unique, and much-loved lever shape. The novel gear-shifting mechanism, using Shimano's Di2, proved to be faultless – despite our concerns that such a homebrew system might be a little unreliable. As for the gears? The gaps on the wide-range cassette are quite large, but it's something we'd soon be able to adjust to after a few rides. No doubt about it, the Tripster is exactly the kind of bike we'd like to own – confident, fun-loving and versatile thanks to its copious ground clearance and rack mounts. With a frame and fork starting at £1,500, it needn't be all that expensive either, although the build here has really sparked our imagination. If you ever worried 40mm tyres were slow, think again. 



RATING

FRAME  
Light, super strong and beautiful – the holy grail

COMPONENTS  
Hylex brakes and Di2 shifters are the standouts

WHEELS  
Light, stiff and strong wheels, great tyres

THE RIDE  
Mega stable over the rough stuff – a real blast

OVERALL



The Tripster is the kind of bike we'd love to own – confident, fun-loving and versatile



Our test bike was upgraded with satellite Di2 shifters in the TRP Hylex brake levers (above) and TRP's carbon CX disc-brake fork (right)







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# Van Dessel WTF

£1,900 (£500 frame & fork)

Some kind of monster? A beast for all seasons



## About the bike

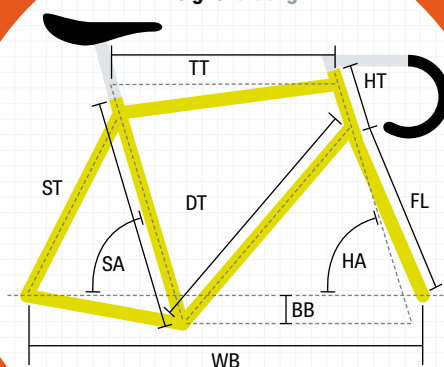
Van Dessel is a company based in New Jersey with a strong racing pedigree, especially in cyclocross – an area of the sport that has really blossomed in the northeast of the US over recent years. The Whiskey Tango Foxtrot, or WTF for short, is a head scratcher of a bike – part monster crosser, part gravel grinder, part commuter. It sure is versatile and as well as rocking an eye-catching look with those twin top tubes. Van Dessel says the WTF is open to suggestions, so we spent our time with it with an open mind.



## GEOMETRY

	Claimed	Measured			
Top tube (TT)	590mm	586mm	Head tube (HT)	175mm	175mm
Seat tube (ST)	520mm	525mm	Head angle (HA)	73°	71.8°
Down tube (DT)		638mm	Seat angle (SA)	73°	72.3°
Fork length (FL)		413mm	Wheelbase (WB)		1068mm
			BB drop (BB)	65mm	69mm

Size tested 59  
Weight 10.63kg







## SPEC

### FRAME

Double-buttressed steel frame and fork, 1.125in head tube

### GROUPSET

SRAM CX1

### BRAKES

SRAM Force mechanical

### CHAINSET

SRAM Force CX1, 40t

### CASSETTE

SRAM Force CX1, 11-32

### BAR

FSA SL280

### STEM

FSA SLK

### SADDLE

Prologo Scratch Pro

### SEATPOST

FSA SLK

### WHEELS

Stan's Iron Cross

### TYRES

WTB All Terrain

### CONTACT

beardedman.co.uk

## The frame

Two heads are better than one, or so the saying goes, so who's to say two top tubes aren't better than one as well? It's not something you see very often, but the WTF's twinned top tubes aren't without precedent – we've seen bikes from the late 19th century that used a similar design, and recently German brand Corratec has used the system to good effect. But does it do much?

Theoretically, the twin top tubes should dissipate more of the frame vibrations from the rear wheel, but we suspect it's used here mostly for looks. It's certainly a talking point. Elsewhere, the frame is quite traditional, with externally routed cables, a steel fork and a non-tapered steerer tube. There are rack and mudguard mounts front and rear, and huge amounts of clearance, especially at the back where there's no brake bridge between the

seatstays, while the driveside chainstay slims into a flat plate towards the bottom bracket. Talking of which, it's the PF BB30-style, which doesn't have many fans but is hugely adaptable – you can even run it as a singlespeed using an eccentric bottom bracket. The head tube is quite tall and the bottom bracket isn't super low, leaning more towards versatility than gravel racing. At £500 for the frame and fork, it's great value for such an exotic beast. ➔



The single chainring has alternating thick-thin teeth which helps stop the chain bouncing off on rough ground

Components

SRAM's single ring revolution started in mountain bikes, where it introduced XX1, which paired a single chainring with a wide range 11-speed cassette – with 10 teeth on the smallest sprocket all the way up to a whopping 42. By using a chainring that alternates between thick and thin teeth, and a rear mech with a built-in clutch (which ensures consistent chain tension even on bumpy ground), chain retention is taken care of without the need for a front mech or any other kind of chain guide. The system was so successful off-road that SRAM took the system to the drop-bar world, starting with CX1, the cyclocross-specific version of its Force groupset. Our test bike came with the non-hydraulic version of the groupset, using excellent Avid BB7 cable-actuated discs, a 40t chainring and an 11-32 cassette. The gear spread is perfect for the WTF's ethos of having fun, exploring the wilds and pushing the boundaries.

Wheels

Stan's was one of the first companies to capitalise on the trend towards tubeless tyres. These work best, in our experience, at lower pressures than those found on road bikes – so the 60-80psi we ran through this test would be ideal. Our test bike came with tubes, but conversion to tubeless is easy, especially with WTB TCS tyres – just wrap tubeless tape around the rim to seal up the spoke holes, throw in some sealant and away you go. The brilliant, versatile wheels are well built and the rims work well with 30mm slicks right up to knobbly 40mm cyclocross tyres.

The ride

Like the Cotic, the WTF is based around a great-value steel frame that's more of a jack-of-all-trades than the Specialized or the Kinesis. It's not light, but versatility rarely is – if you owned two sets of disc wheels, this is a bike that could be a weekday road commuter, then a not-quite-MTB at the weekend with big fat tyres. The bottom bracket is a bit higher than the best riding adventure road bikes, but with its comfort-oriented twin top tubes and multiple mounting points for racks and mudguards, the WTF is primarily configured for long-haul adventures rather than high-speed escapes from suburbia. On the road, we were



really impressed by the build kit. SRAM's CX1 groupset works faultlessly and we never had any concerns about a lack of gears. The WTF's beach cruiser-style parallel tubing looks cool and provides plenty of space for even the widest of tyres, including mountain bike knobbles – we did find ourselves grazing inner thighs on the top tubes, though. The pairing of skinny steel tubes and conventional dropouts is less rigid than most carbon or aluminium bikes, so it's not the sort of frame that rewards big, out-of-the-saddle efforts. If you're searching for these attributes, Van Dessel has a selection of bikes that are more suitable. The extra flex is welcome when absorbing the knocks thrown up by badly paved roads. We even found ourselves forgiving the twanginess when cornering over roots and ruts. This bike is up for anything. Securely planted, predictable, versatile – it's happy to be whatever you want to make of it. 



RATING

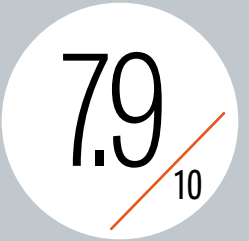
**FRAME**  
Top tubes look great; could be lower slung

**COMPONENTS**  
Great brakes and gears – perfect for exploring

**WHEELS**  
Strong and versatile, work well with tubeless tyres

**THE RIDE**  
Super-smooth, hungry for long-haul adventures

OVERALL



The 11-32 cassette (above) is a good spread for this bike, while the wide steel fork (right) has plenty of room for wider tyres



Securely planted, predictable and versatile, it's happy to be whatever you want to make of it





Purple  
Harry<sup>TM</sup>



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# Specialized Diverge Comp


# Kinesis Tripster ATR







Fast, fun and versatile – these two are everything we love about the adventure-bike concept

**G**ravel – or adventure – bikes are still finding their feet in the UK, and although the argument is starting to sound a little tired now, a lot of people will tell you we don't really have the terrain, which is nonsense. We easily created a number of 100km rides around the south-east of England where these bikes allowed us to link up our favourite, quiet and scenic stretches of tarmac with some really fun (and occasionally quite gnarly) byways and broadleaves. What's more, we only suffered a single

puncture during the whole testing process – so we're sold on both the concept and the reality. Cotic's Escapade is a beautiful-looking bike and it's great value, but we felt that its desire to be 'all things to all men' let it down off-road. Lighter wheels and a lower BB would have made it more competitive as a gravel bike. The Van Dessel WTF is a fun bike and we think it's fantastic value for something that's fairly exclusive – you don't see many Van Dessels in the UK. If we were going touring or bike packing, this would be

our choice. It makes a great super-commuter, too. The best bikes off-road were the Kinesis Tripster and the Specialized Diverge. The Tripster inspires confidence whatever the road surface, and has enough tyre clearance to really play it fast and loose. The Diverge is more direct and has less tyre clearance, but at £2,000 it's a fantastic package and one we'd gladly ride every day. Both opened our eyes to how much great riding we've missed on our doorstep, which is exactly what these bikes are all about. 

### HOW THEY STACK UP...

			
<b>SPECIALIZED DIVERGE COMP SMARTWELD</b> £2,000	<b>COTIC ESCAPADE</b> £1,600	<b>KINESIS TRIPSTER</b> £1,500 frame & fork	<b>VAN DESSEL WTF</b> £1,900
FRAME COMPONENTS WHEELS THE RIDE	FRAME COMPONENTS WHEELS THE RIDE	FRAME COMPONENTS WHEELS THE RIDE	FRAME COMPONENTS WHEELS THE RIDE
OVERALL 8.9	7.4	8.9	7.9





## Stockists

### COVER

**Sugoi RS Pro jersey, £80,**  
cyclingsportsgroup.co.uk

**Castelli Velocissimo Due bibshorts, £100,**  
castellicafe.co.uk

**Specialized S-Works Prevail helmet, £160,**  
specialized.com

**Shimano SH-R171 shoes, £150,**  
madison.co.uk

**Craft AB Glove, £16,**  
craft.se

### LA DOLCE VITA PAGE 22

**dhb Professional ASV jersey, £60,**  
**dhb Professional ASV bibshorts, £65,**  
wiggles.co.uk

**Rapha Pro Team jersey, £120,**  
**Rapha Pro Team bibshorts, £190,**  
rapha.cc

### ON THE ALE TRAIL PAGE 50

**Road Holland Utrecht jersey, £75,**  
roadholland.com

**Lizard Skins La Sal 1.0 gloves, £30,**  
2pure.co.uk

### SWAG BAGS PAGE 70

**Lazer Blade helmet, £60,**  
madison.co.uk

**Rapha Classic jersey, £110,**  
rapha.cc

### WHERE THE ROAD ENDS PAGE 89

**Bontrager Ballista Helmet, £160,**  
trekbikes.com

**Vermarc PRR jersey, £100,**  
**Vermarc PRR bibshorts, £100,**  
chickencycles.co.uk

**Giro Privateer shoes, £100,**  
zyro.co.uk

**Lazer Blade helmet, £60,**  
madison.co.uk

**Chapeau Tempo jersey, £50,**  
**Chapeau Classic bibshorts, £70,**  
chapeau.cc

**Giro Factor shoes, £250,**  
zyro.co.uk

### SLAVES TO THE RHYTHM PAGE 126

**Rapha cap, £30,**  
**Rapha Lightweight jersey, £100,**  
**Rapha Lightweight bibshorts, £155,**  
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**Giro Empire SLX shoes, £250,**  
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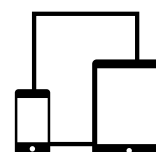
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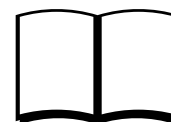


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# the **edge**

SKILLS, TIPS AND FIXES TO  
UPGRADE YOUR PERFORMANCE

## RIDING

# Head count

Don't just train your legs, harness the power of the mind for cycling success

### 1 BITESIZE CHUNKS

'View the course differently,' says sports psychologist Dr Vic Thompson. 'If there are six hills, break the ride into three or six components and pace it so that you don't burn out. If you have a heart rate monitor, that may mean not tipping over around 85% of maximum. If you do, simply reduce your effort.'

### 2 KEEP POSITIVE

'Think about what you want to be doing, not what you want to avoid,' says sports psychologist Russell Martindale. 'If you're looking to corner at speed, focus on a good, fast entrance and exit in and out of the apex, rather than letting thoughts about what you should avoid enter into your head.'

### 3 PICTURE PERFECT

'The best athletes engage in mental imagery,' says Ian Robertson, professor of psychology at Trinity College Dublin. 'Almost all the parts of the brain that are active when you're racing are active when you're thinking about it. So visualising your race unfolding will increase your capacity to cope with it.'

### 4 RACE SELECTION

'Choosing a race with a big crowd is a good idea,' says former professional Jens Voigt. 'You can't fail to draw off the energy of spectators. It's an emotional thing, but it really helps you to dig deeper. Racing on emotion is a good thing. How dull would the Champions League Final be in an empty stadium?'

### 5 GOAL-SETTING

'Athletes often focus on long-term, outcome-focused goals because that motivates them to train,' says Professor Tim Woodman, head of elite performance at Bangor University. 'But the key to effective goal setting is having precise short-term process goals, which can be monitored via feedback.'





OUT OF  
THE SADDLE  
#5



## Swimming

Slip on those Speedos for cross-training benefits

→ **Swimming is the ideal discipline to stretch out the cyclist from the hunched, bent and aero-contorted position they constantly find themselves in. Whether it's breaststroke, front crawl or backstroke, swimming increases shoulder mobility, which is very useful when playing around with different hand and body positions. Plus swimming also improves your stamina, which will transfer to your riding.**

**After 30 minutes in the pool, your shoulders should feel loosened off and your legs worked, but not sore. Steering the body horizontally through water deprives you of sounds and visual stimulation, which helps you relax. The change of scenery, especially if in the sea, will also boost your motivation to exercise.**

**Add deep-water running to your swimming routine and the cross-training effect for cyclists will edge mind and body closer to peak performance. Joe Beer is a highly acclaimed triathlon coach with a 20-year career**

# Exhale to victory

Getting more oxygen into your body will drastically improve your cycling performance. Take a deep breath...

**W**e all know that breathing gets faster and deeper when we exercise. The reason is simple: when you breathe in (inspiration), you deliver oxygen to the bloodstream for organs, muscles and tissues. When you breathe out (expiration), you emit carbon dioxide, a byproduct of metabolism. As exercise intensity increases, you need to take in more oxygen, as well as having more carbon dioxide to get rid of, so breathing gets faster, and tidal volume – the depth of each breath – increases. In fact, during intense exercise, pulmonary ventilation – volume of air inhaled and exhaled every minute – can increase by 600%. That's where larger, well-trained lungs come in.

'Larger lungs keep your breathing frequency lower and tidal volume higher, compared with someone who has smaller lungs,' explains Alison McConnell, professor of sport science at Bournemouth University and an expert in respiratory training. 'This breathing pattern also makes the removal of CO<sub>2</sub> more efficient, which means you can buffer lactic acid better, delaying fatigue.'

### BELLY BREATHING

McConnell's deep knowledge of exercise and breathing led her to invent Powerbreathe – a device that you clamp to your mouth and breathe into to exercise the lungs. McConnell discovered that exercise alone wasn't enough to target the diaphragm – the large sheet of muscle that sits at the base of the ribs and controls their action. She conducted numerous studies into the subject, including one that showed cyclists' time trial performance improved by 3.8% over 20km and 4.6% over 40km after six weeks of inspiratory training. Their perception of fatigue also came in substantially lower.

While pros can set aside time for dedicated lung training, the rest of us can try where deep breathing exercises – aka belly breathing. Research shows the majority of people use only 10-15% of their lung capacity in normal breathing. When you ride hard, it feels natural to increase the rate of breathing, rather than the depth. But by practising deeper breathing, you can increase the use of your lung capacity by nearly 100%.

### GO DEEP

When inhaling, you simply draw in a greater breath than normal through your nose and mouth, but really feel it from the bottom of your lungs. That might sound a touch 'out there' but if you're doing it correctly, it's noticeable as your abdominals will expand more than your chest. The key part, however, is the expiration phase because if you can increase the volume of air you're breathing out, it makes deep breathing easier. Experts suggest that exhaling through your mouth to a count of three followed by inhaling to a count of two is optimum and sustainable, made easier by syncing this breath pattern to your pedal cadence.

**Experts say exhaling via your mouth to a count of two, synced to your cadence, is optimum and sustainable**

You can practise this in training with a tool like the Powerbreathe, though you can get similar results by simply breathing through pursed lips. This automatically forces you to breathe deeper. Or you could adopt the breathing technique of former Hour record holder Graeme Obree, who invented his own technique known as The Obree Method.

'It's a three-breath pattern,' says Obree. 'For the first breath, you start from reasonably full lungs, exhaling strongly and much further

than you would normally, then inhale to a slightly greater depth than normal. At this point you have as much oxygenated air as possible with lungs inflated to their capacity. The second breath is half a breath in and out, while the third should be an even smaller breath in and out. You then return to the big breath.'

Obree argues that deep breathing is all well and good, but leaves too long a pause between breaths, which feels uncomfortable as intensity rises. Riders of the








quality of Lotto-Soudal's Greg Henderson have 'tried and adapted' the Obree Method and it's certainly worth giving it a go on your next ride as the gradient increases.

Even the best cyclists can see a 30 watt power drop between a normal road position and an aero position. 'All of the trunk muscles are involved with breathing and help stabilise the aero position,' says McConnell. 'That's why certain exercises like the plank are great as they help to strengthen your core.'

Efficient breathing is a neglected part of cycling, but whether you choose the 'belly' or the 'Obree' method, using it for a few minutes each day can reap big rewards. 

Words: Joe Beer, James Wits Illustration: Ben Spurrier

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### 2 BREATH RIGHT NASAL STRIPS £6 (pack of 10)



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### 3 RHINOMED TURBINE £20 (pack of 3)



Seen stuck up Chris Froome's nose during the Tour, this gizmo opens up your nostrils from the inside, but still looks like a naff fluoro nasal piercing. [velobrands.co.uk](http://velobrands.co.uk)



OLD  
SCHOOL  
#2



## Back on the chain gang

The traditional way to hone pace while fine-tuning group riding skill

→ Chain gangs are fast-paced group rides that take place in most areas of the country. Traditionally used as a sharpener for racers, a route into racing for young riders and a hard workout for non-racers, you'd think these rides would have passed into irrelevance now that we can train with power and control all the variables on a turbo trainer? Not according to ex pro and TrainSharp coach Dean Downing.

'On a normal level, riding with a club helps with bunch riding technique and etiquette, which is something I notice when I ride with HotChillee ([hotchillee.com](http://hotchillee.com)) – for a lot of people, those are their first rides in a group.'

A chain gang calls upon additional skills and fitness over a normal club ride: going 'through and off', taking the lead for 20secs, peeling off and rejoining the group at the back, requires attentiveness, good bike handling and physical strength.

'A chain gang is all about constant, small accelerations,' says Downing. 'It's a hard effort every 30secs without much recovery – I remember doing a chain gang with some other pros once and we were doing 50kmh. I was hitting 450w on the front and still doing 300w on the way back – that's exactly like being in a breakaway.' That kind of effort is hard to recreate on your own – it needs the competitiveness of a group to make you keep up. And if you can't keep up, many chain gangs take an out-and-back route, so you can rejoin the group on their return leg.

Now working as a coach, Downing builds chain gangs into his riders schedules, not, he says, just for the fitness, but for the group riding skills they develop. Ask your local club where you can find your nearest chain gang and take the fast track to fitness.



97

CHRIS FROOME'S  
CADENCE ON THE  
LA-PIERRE-ST-  
MARTIN CLIMB  
ON THE TOUR.  
PRACTISE FASTER  
PEDALLING IN  
TRAINING TO  
BOOST YOUR  
CLIMBING SPEED

# Stealth session

Not every ride has to be a full-on training session – adding elements can help build a stronger, more-economical you

**J**ust heading out the door with your mates and riding off to the horizon unleashes a physical and mental high, but with a few on-the-bike training drills, it's possible to maximise each and every pedal stroke.

'For improving technique and efficiency, focus on pedalling in full circles,' says cycle coach David Gwilliam. Imagine you're wiping something off the bottom of your shoe, and use the 'pull backwards' motion to drive the pedal and let the leg naturally push down.

## BEST FOOT FORWARDS

'Most riders have a favoured leg,' says Gwilliam. 'With one leg only, count the pedal revolutions each minute of your strongest leg. Now count revolutions on the opposite leg and concentrate on its form.' This useful little drill focuses the mind when fatiguing and provides you with a lift in your pedalling that will help you get going again.

Cadence – the number of times you revolve the pedal each minute – is another indicator of rider economy. Research shows that an optimal cadence is around 90rpm, though having a range (say 80-100rpm) to draw on means you're able to cope with changes in gradient, wind and corners without constantly changing gear

and disrupting your rhythm. 'You can increase your range by using different cadences throughout your rides,' says Phil Paterson of coaching outfit RG Active. 'Warming up in a low gear and then changing up one or two gears on a flat section gets you used to pedalling faster.'

## GOING UP A GEAR

Riding in one gear higher than you normally would at a given speed increases leg strength. It also

reaches of the brakes and gears. This allows good visibility, maximum control and increased comfort through the lower back and hips.

## FLEX YOUR ELBOWS

'This position can be made more aggressive and aerodynamic by flexing the elbows until your forearms are almost horizontal, sometimes even resting on the bars,' adds Paterson. 'The advantage of this position is that

it's easy to transition into for short periods on the flat or into the wind while still having full access to the controls.'

'You should then play around with

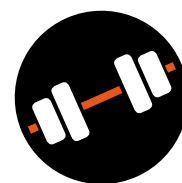
your position when your hands are on the drops,' Paterson continues. 'This immediately flattens your torso so that you present a smaller surface to the wind and, as a direct result, will experience less resistance, meaning you'll go even faster for the same effort.'

This might feel uncomfortable and unsettling to begin with. Don't worry, just start off by spending 2mins in this position every 30mins and slowly increase this by a few minutes each week and you'll soon be as comfortable on the drops as you are using the hoods.

Using the drops at speed can feel uncomfortable and unsettling at first, but it's easy to get used to

improves pedal technique because a less-than-smooth pedal motion leaves you wriggling all over the place, which drains energy and drops intensity. Over-gearing is a useful skill to employ when commuting because not only does it add a physical edge, but it helps break up the usual monotony.

You can also play around with your bike position to discover your optimum balance of peak power and comfort. The position where you have the greatest control is with your hands on the hoods, elbows slightly flexed and arms relaxed, in



## Heavy lifting

With the focus on making bikes lighter it may seem counterintuitive to start adding weight, but in training it will boost your power come the races. Here are three simple methods to bloat out

## >DON'T BOTTLE IT

Adding weight to your bike increases the force you must overcome in order to project your bike forwards. An oft-used technique is to take a water bottle and saw off the valve and upper section to leave a tin shape. Then simply fill the vessel with something weighty like a handful of iron ball-bearings.



## >PANNIER POWER

They might morph you into a classic touring cyclist, but adding panniers will significantly increase bike-and-rider weight, while adding a practical edge – you can store clothing, food, small animals – anything you want! For training purposes, the heavier the better. Pannier choice comes down to front or rear or, if you're feeling particularly hardy, you can go for both. Rear-only is more common.

## >PUT A BRAKE ON IT

The last one might feel a little extreme, but you could always take the Chris Hoy approach and ride with your brakes on. It requires a degree of brake tinkering and isn't advised in heavy traffic, but that added resistance will could go some way towards developing Hoy-like thighs.



## Drill bits

A quartet of exercises to take out on the road

1

### ONE LEG AT A TIME

On a quiet stretch of road or cycle path, cycle along in a low gear before unclipping one foot. Keep the 'loose foot' out of the way of the cranks and pedal with one leg. This improves your pedalling technique as you can't help but eliminate the dead spot. Over time, alternate this technique using both legs for maximum effectiveness.

2

### GO SINGLE-HANDED

Building confidence riding one-handed is beneficial for eating, drinking and signalling. On a quiet road, hold your handlebars just using your right hand. Pedal in a straight line for 10-30m. Switch hands and repeat the process. Gradually increase the distance you practise over as time passes – but be sure to stick to using quiet roads.

3

### STAND AND CLIMB

Find a hill of 200m in length. At the bottom of the slope, change up a gear while simultaneously rising out of the saddle. The change of gear and extra force from standing will keep you moving forwards rather than 'stalling' as you stand. If you can't sustain the effort, change down a gear but keep standing as it improves this element of the technique.

4

### FAST INTERVALS

Intervals boost cycle fitness by adding in periods of higher-than-sustainable efforts. Find a stretch of road or a loop between 4-8mins long where you cycle as hard as you can with either a rest in between or use the return leg to allow for recovery. This can be a good game to play when cycling with a friend, as it adds a fun, competitive edge. 🚴



# FOOT LOOSE

Swap stubborn pedals like a boss with these six steps

**L**efty-loosey, righty-tighty' is a useful rhyme that will serve you well when working on your bike – unless, that is, you're trying to remove the pedals. This otherwise straightforward job often confuses people because unusually, the threads on each crank turn in opposite directions. The reason for this is that if they turned the same way, the momentum of your spinning legs would continually tighten the pedals, which after several hundred miles could make them extremely difficult to remove. It also means that in the event of your pedals jamming they're more likely to unscrew themselves rather than mangle your feet and knees. Whether you're taking them off to pack your bike for travel or upgrading to a new set, following these tips will make removing your pedals a breeze (and chainring graze a thing of the past).

TIME TAKEN: 5MINS  
WORKSHOP SAVING: £2



## 1 PROTECT YOUR KNUCKLES

Start by shifting your chain onto the big ring, this means that any slips are less likely to result in a chainring-related knuckle injury. This is one of those rare jobs that's easier to carry out with the bike resting the right way up on the ground rather than suspended in mid-air in a bikestand.



## 2 TO THE LEFT

Starting on the drive side, put the crank into the three o'clock position, so it points forward, parallel to the ground. Most pedals will accept an allen key in the back. Insert this so it sits below the level of the crank. Now push down and forwards, turning anticlockwise. You can use reasonable force.



## 3 TO THE RIGHT

Swap to the other side and place the crank in the nine o'clock position. Repeat the process as before, pushing the allen key down and forwards. This time the pedal will turn clockwise. Next, spin the pedal off. Remember to keep any washers that fall out as you'll need them when fitting your new pedals.



## 4 CLEAN UP AND INSPECT

Give the threads on the axle and inside the end of the crank a quick wipe down and check for any sign of damage. If they look worn, your local bike shop can save the day by using a tapping tool. This only tends to be something to worry about if the pedals have been difficult to remove.




## 5 SQUEEZE OF GREASE

If you're happy with the condition of your axle threads, add a quick squeeze of grease or anti-seize. This will not only reduce the possibility of them squeaking as you pedal, but should ensure that the next time you come to remove them they'll come undone without too much of a struggle.



## 6 SPIN BACK ON

Find the markings on the pedals to distinguish between left and right. Replace any washers and gently thread the pedals back onto the crank as any force can cause damage. Each pedal will tighten by turning towards the front of the bike. The right pedal goes on clockwise and the left, anticlockwise. 



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# Feed your efforts

Support your training with a scientifically proven diet and reap the benefits

## → **CAFFEINE** **GOOD FOR: POWERING UP**

Caffeine is possibly the most effective legal drug in cycling. Its benefits include reducing perception of effort, burning more fat for energy, improving decision making and increasing muscle power. In fact, so proven are its performance-enhancing effects that it was once banned by WADA. But how much do you need to boost your speed? 'Around 3-4mg of caffeine per kilogram body mass is ideal,' says nutritionist Sophie Killer. 'That means 240-320mg of caffeine for an 80kg rider.' Starbucks' filter coffee comes in at about 240mg for a 350ml ('tall') cup. Or you could go for a latte or cappuccino,

which contain 150mg caffeine for the same size, and top up with caffeine energy gels along the way.

## → **SODIUM BICARBONATE** **GOOD FOR: REDUCING LACTIC BURN**

As you ride harder, you produce more lactic acid, which can lead to 'the burn' and a drop in power. That's where sodium bicarbonate comes in (yes, the baking powder used in your kitchen). Because it's alkaline, it neutralizes the acidic threat from intense exercise. 'Essentially it allows you to produce more lactate during exercise,' explains Dr Jonathan Baker, sports scientist at the MTN-Qhubeka pro team. 'This means you can do more

## Sodium bicarbonate helps to neutralizes the acidic threat from intense exercise as it's alkaline

intense bouts of exercise, so essentially maintain a high power output.' Swiss research showed a staggering 23.5% increase in time trial power output after ingesting 0.3g of sodium bicarbonate per kilogram of bodyweight. You may prefer to consume it in pill form as water and bicarb can make you gag. Mind you, even the pill has been known to cause gastric distress, so it's probably best to try it in training first, just in case.

## → **NITRATES** **GOOD FOR: SPEED & ENDURANCE**

The nitrates in beetroot – or the juice drink 'Beet It' – could transform your performance, according to many different studies. Research published in 2010 by Katherine Lansley at Exeter University showed that drinking 500ml of beetroot juice every day for six days extended the subjects' treadmill run-to-exhaustion time by 15%. Another study found that eating 200g of beetroot led 11 runners to finish a 5km race faster. The idea is that when digested, nitrates within the beetroot flow into a biochemical pathway in the body that converts them to nitric oxide, which makes riding easier. Whether your gag reflex can cope with a half-litre of beetroot juice remains to be seen.

## → **GLYCEROL** **GOOD FOR: HYDRATION**

Glycerol is found bottled in Boots, or in dairy products like cheese and yoghurt. Research has shown that it has water-retaining qualities, which is why many riders have played around with glycerol when racing or training in the heat. In fact, one

# 500ml

THE OPTIMAL AMOUNT OF  
BEETROOT JUICE TO DRINK  
BEFORE STARTING EXERCISE





study showed that riders retained 50% more water when using glycerol than drinking water alone. The ideal is that 1g of glycerol is mixed with 20-25ml of water (per kilogram of bodyweight) then ingested – this equates to 80g of glycerol in 2 litres of water for an 80kg rider. That's a large volume of liquid which can leave you feeling a little on the bloated side, but this will settle. Just beware that nausea has been reported, so this solution may not be for you.

## → QUERCETIN GOOD FOR: HEALTH & IMMUNITY

Quercetin is a flavonoid (antioxidant) that's found in onions. You can also buy quercetin supplements from the chemist. Studies have shown that it helps to eliminate free radicals in the body and also increases bone density, which is particularly appealing for cyclists (who participate in non-weight-bearing activity); as well as protecting and regenerating vitamin E (another powerful antioxidant). Further research has shown that quercetin also reduces the likelihood of picking up an upper respiratory tract infection (URTI), which can stop many cyclists in their tracks during a cold winter. In fact, if you're looking to double up on URTI defence, an increasing body of evidence suggests you should take a daily probiotic.



## Hit the track

Fancy riding track? Course you do, and who better to give you pointers than Olympic gold medallist Ed Clancy MBE?

### 1 TRACK RACING IS BRILLIANT...

Especially in terms of racing, particularly at a lower level. If you do a Cat 3 or 4 road race or a time trial, you know who's going to win before the race even starts. On the track it's different because you can use tactics. You don't have to be the fittest. Track riders tend to be bigger than road riders anyway and when we're in training, it's important not to lose any muscle mass – the nuts and seeds in 9Bars are a good source of protein, and drip-feeding energy over the course of a session.

### 2 YOU WON'T FALL OFF THE WALL

The first thing most people do when they get to a velodrome is go to the steepest part of the bank and peer over the edge. It looks pretty daunting from up there – I still find it hard to believe we do 60kmh team pursuit changes up there – but the faster you're going, the flatter it seems. I've been riding track for many years and I've crashed loads of times, but I've never slid down the bank. It's just physics – the centrifugal forces increase the faster you go, and even when you're at the very top and

you're perpendicular to the track, it's impossible to slide down. At 40kmh, you're solidly glued to the boards.

### 3 IT'S NOT REALLY THAT DIFFERENT FROM ROAD RIDING

Any half-competent cyclist who's used to riding in a bunch won't have anything to worry about getting on the track. Obviously, there are differences – there's no road furniture, stationary cars or traffic for a start. There's nothing to hit except other riders, and they're all moving at roughly the same speed as you – which is why there's no need for brakes.

### 4 DON'T STOP PEDALLING

You can ride around the Côte D'Azur (the broad light-blue stripe at the bottom of the track) as slow as you like, but you need to hit around 30kmh to get up to the blue line. That may sound like a lot for a road rider, but on the track it's nothing – you can do that for fun. The fixed wheel aspect takes a bit of getting used to, especially for the more competitive

riders who are used to having a sprint on the road with their mates and start freewheeling when they've finished. Obviously, you can't do that on a track bike. I've seen people stop pedalling after an effort and get thrown out of their saddle.

### 5 MASTER THE TRACK STAND

I'd never done a track stand for very long while waiting for the starting pistol. I spend more time practising wheelies and daft stuff like that. Get your bars on full lock – you have to do it on the right-hand one and keep your weight central. It's best not to practise in the road, but if you do track stands at traffic lights, watch out for the camber and keep away from the gutter. It's easier to track stand on a mountain bike than a track bike, but you can't ride one of those around a velodrome. 🚴 Ed Clancy MBE is an ambassador for 9Bar – a nutritious, gluten-free energy bar containing natural ingredients such as seeds and nuts. For more information visit [9bar.com](http://9bar.com)

*'I've seen people stop pedalling after an effort and get thrown right out of their saddle'*





## OUT THERE

BECAUSE ALL THAT NEW GEAR WON'T RIDE ITSELF

# LITTLE WONDER

Enjoying traffic-free lanes and punchy climbs in England's smallest county

WHERE: **RUTLAND, EAST MIDLANDS**

TOTAL DISTANCE: **85.3KM**

TOTAL ELEVATION: **675M**

**'M**ultum in Parvo' is the Latin slogan that adorns the sign greeting visitors to England's smallest county, which translates as 'A lot in a little'. It sums up the county's roads perfectly, for a ride in the traffic-free back lanes of Rutland has all you could want. Fast descents, punchy climbs, rolling hills, rapid rat-runs – it's all here, and it all starts just metres from the A1, so accessibility is as good as it gets.

Our route starts in the car park of the OK Diner, an American-style burger joint just a few miles from the market town of Stamford. We head out on an undulating road through the charming villages that lie in mini-valleys along our route. This, along with the sun overhead, soon warms up the legs, and we power up the slight inclines that pepper Barnsdale Avenue. At Burley, a quick shimmy right propels us on to a wide, long descent with cracking visibility that affords a 60kmh-plus top speed as all three of us get our heads down and bums up for a rocket-ship blast to Ashwell. Where we encounter the first traffic to speak of that we've seen all day.

We power up and down sweeping roads, through the village and onwards to one of the locals' favoured hill repeat climbs into ➔



Our three Italian bikes performed beautifully on the smooth rolling roads of England's smallest county





## THE ROUTE

■ **GPS DOWNLOAD** [cyclist.co.uk/11rutland](http://cyclist.co.uk/11rutland)

■ **DISTANCE** 85.3km

■ **CLIMBING** 675m

■ **TIME** 3.5-4 hours

Depart the neon-lit sanctuary of the OK Diner in Tickencote and head right towards the A1, hooking left just before the dual carriageway. The route is undulating, gaining gradually in altitude for the first 13km, but there's a nice fast descent after Burley. At Teigh, turn right towards Market Overton. Once you've crested Market Overton hill [1] (challenge: take this in the big ring and you're going some), follow the

rolling roads to Wymondham. After a stop at the Windmill Tea Rooms [2], head back down to the village and take a right. After Stapleford, smash it up Cuckoo Hill [3] before descending at around 60kmh. Follow the route back to Teigh, retracing your wheel-tracks to Ashwell, where you take a left. Continue through quiet country lanes and villages to Pickworth, where you cross a cattle grid and are soon surrounded by sheep [4]. Head straight on until the T-junction, turn left then right (under the A1), before smashing the final 3km back to the OK Diner for a celebratory milkshake.





Sheep (main pic) and level crossings (below right) are among the few hazards on our route; the genteel Wymondham Windmill Tea Rooms (below left) make a great lunch stop



Market Overton. One Rutland club even thought it was a good idea to make this climb part of their 10-mile TT course. Don't ride it if you're looking for a PB. Although short, like most of the county's climbs, the double-figure gradient is abrupt and power-sapping.

The wind has been against us for most of the morning, but the newly surfaced road that runs along a slight ridge takes the pain out of the headwind, until we spy a disused windmill on the hilltop to the north: the Windmill Tea Rooms, our designated lunch stop where we're promised quality baguettes, lots of cake and very good coffee; fellow riders make up around half the patrons.

After another short, sharp climb out of Wymondham, we hit a rollercoaster road that narrows to a single lane. We're in Rutland-Melton CiCLE Classic territory now, skirting lanes close to Melton Mowbray, home of the pork pie, and preparing to belt another local Strava segment. Zipping across the road to carry as much speed as possible into Cuckoo Hill, we're again changing down into the little ring, legs blurring as we hammer up the short incline with crazy cadence. My hands are flat on the bars as I engage as much of my core as the recently consumed baguette allows. We're soon rewarded with an exhilarating zip-line velocity descent, which causes all three of us

**WE SLOW DOWN  
FOR GAMBOLLING  
LAMBS AND  
AMBLING EWES**



## CAFE STOP HEAVEN

You're spoilt for choice when it comes to coffee stops in this neck of the woods

### WINDMILL TEA ROOMS, WYMONDHAM

wymondham

windmill.co.uk

Quaint as they come, and a huge selection of cake to go with your coffee. We recommend the hot chicken and bacon baguettes. There's plenty of outdoor seating, it's exceedingly bike-friendly (Windmill Wheels bike shop is nearby) and there's an old windmill to explore, too.

### THE OLIVE BRANCH, CLIPSHAM

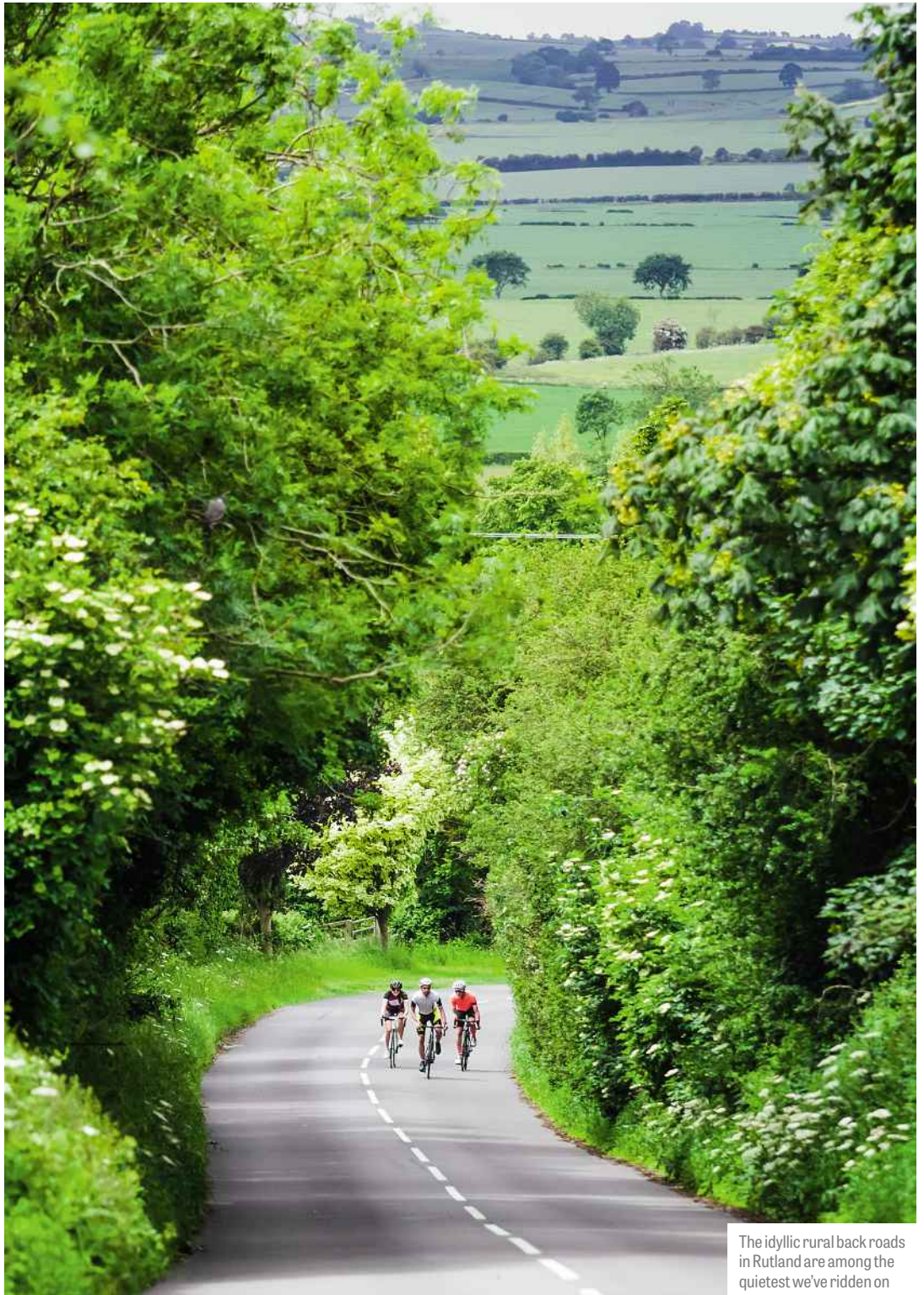
theolivebranchpub.com

If you fancy something more than the usual coffee and cake, Clipsham's Olive Branch pub has Michelin stars. Stop for lunch in the garden and stock up on high-quality nosh here if the run in from the A1 has taken it out of you.

### THE OK DINER, TICKENCOTE

okdiners.com/tickencote

Everyone loves a greasy burger and a milkshake, right? We eschewed our usual sports recovery drink and went straight for the ice cream-loaded 'Top Dollar' milkshakes at the OK Diner. Expect sounds of the '60s, neon lighting and an authentic leatherette diner experience. And a cracking deal on burgers on a Wednesday.



The idyllic rural back roads in Rutland are among the quietest we've ridden on

to test our brakes to the full as we approach the T-junction at the bottom.


Grovvelling upwards to picturesque Whissendine, we once more drop down, this time into the centre of a village, where we meter braking effort carefully and negotiate a rapid S-bend. A shortcut northwards gives us shelter from the wind, and it's only when we're forced to stop at a level crossing that we realise just how hot it is out here in the lanes. Sun beats down, laser-etching tanlines as we wait for trains to pass.

Joining up the northernmost loop of our ride, we head back into Ashwell on racetrack-smooth tarmac, and hang a left to encounter

another cliff-face climb into the RAF town of Cottesmore. To this point, we've encountered almost as many cyclists as we have cars, but as we line out and average 35kmh-plus to the village of Greetham, traffic becomes more regular. From here, it's a rapid right-hander and underneath the A1 before we rattle along into picture-postcard Clipsham and beyond to a beautiful yew tree avenue that sits to our left as we wind up through quiet B-road lanes. Big rings are engaged for an arrow-straight descent, and gears hastily clicked back down to the 25-tooth cog for its equivalent ascent.

Not much touches this part of the country for silent roads, and we see no more than five

cars in the next 10km. The biggest hold-up is due to sheep, as we cross a cattle grid into a gated road through Pickworth, and slow for gambolling lambs and ambling ewes. The rural idyll is alive and well.

Running parallel with the A1 and once more turning sharply beneath it, we sit up and spin the final few kilometres to the chrome facade of the OK Diner. Bright sunlight glinting off its exterior blinds us momentarily. There's only one thing for it on such a glorious summer's day and we emerge minutes later clutching tall cups of ice cream-laden milkshake. If this is the new face of recovery, I'm going for another lap. 



# SPORTIVE CALENDAR



# SEPTEMBER

Summer's nearly over, but there are still plenty of great cycling events to take part in throughout September. Here's our pick of the best



## BEALACH MOR CHALLENGE KINLOCHEWE

**Date:** 5 September

**Distance:** 90 miles

**Price:** £39

**Enter:** [handsonevents.co.uk](http://handsonevents.co.uk)

You won't find many more dramatic locations than the Applecross Peninsula in the Highlands. Set in the wilderness of the surrounding area and based in the village of Kinlochewe, with a population of just 150 people, you can expect a pretty quiet ride. As if cycling in such an unspoilt area wasn't enough of a draw, there's a hidden bonus – a closed-road climb of the infamous Bealach-na-Bà, which has stats to compare with some of the most recognised climbs in Europe. Climbing for just over 6 miles, the total ascent is a whopping 2,054ft making it the greatest total ascent of any single climb in the UK.

## MARLOW RED KITE MARLOW

**Date:** 6 September

**Distance:** 125/100/80/50 miles

**Price:** £25

**Enter:** [marlowredkiteride.co.uk](http://marlowredkiteride.co.uk)

Based from Marlow in the Thames Valley, this ride has a good selection of distances to cater for most abilities, taking in the best of the Chilterns and on the longer routes, the Vale of Aylesbury. Add to that a barbeque at the finish with a local brewery supplying the ale, and some proceeds going to the Cyclists Fighting Cancer charity, you can feel good while refuelling afterwards.

## SHUT UP LEGS LYNDHURST

**Date:** 12 September

**Distance:** 50 miles

**Price:** £100 (all money goes to charity)

**Enter:** [shutuplegscharityride.com](http://shutuplegscharityride.com)

This is an event with a real difference, an offers a unique opportunity to ride next to and shoot the breeze with super-domestique Jens Voigt while



exploring the New Forest (and at their HQ). The numbers are limited to ensure everyone gets to spend time with Jens, who has supported the event for three years, riding as a pro with Trek Factory Racing (see photo, above) until recently. All of the money raised goes to the Epilepsy Society, and Trek, along with local retailers will be giving away spot prizes along the way. The route is under wraps until nearer the ride, but you can't go wrong in this neck of the woods, especially when sitting on the wheel of a cycling legend.

## BIKE OXFORD OXFORD

**Date:** 13 September

**Distance:** 80/50/20 miles

**Price:** £33/£33/£18

(Under-16s £10 all distances)

**Enter:** [bikeoxford.co.uk](http://bikeoxford.co.uk)

From the team that successfully runs Bike Bath come a new event based around Oxford and the surrounding area. With all routes taking in the sights of Oxford before branching out on rolling terrain through the picturesque Cotswolds, the shorter distances would be ideal for novices and younger riders, with the 80-mile ride adding a bit more of a challenge for seasoned riders, with all the usual sportive support included. If you've ever needed an excuse to visit this glorious part of the English countryside you've got one now.

## WIGGLE NEW FOREST RINGWOOD

**Date:** 19-20 September

**Distance:** 100/73/57 miles

**Price:** £36/£36/£26

(Under-16s ride for free)

**Enter:** [ukcyclingevents.co.uk](http://ukcyclingevents.co.uk)

Always a popular ride on the calendar, this year's edition has been split over two days giving you the option of riding on Saturday or Sunday – or both. Mostly based within the peaceful and scenic New Forest, the routes take in the best of the traffic-scarce country lanes and climbs, without being brutal, and rewards you with breathtaking views.

## OBAN SPORTIVE OBAN

**Date:** 20 September

**Distance:** 90/52 miles

**Price:** £28

**Enter:** [obansportive.co.uk](http://obansportive.co.uk)

The west coast of the Highlands is a stunning setting for any ride, especially one that starts in the port of Oban, then charts a course through the immediate area and a ride along the banks of the longest loch in Scotland – the appropriately named Loch Awe. Inexperienced riders should try to enjoy the ride without biting off more than they can chew. This won't be an easy day out for anyone, but it's bound to be pretty spectacular.





Above: Why not head for the Highlands or ride alongside a real cycling legend (left)

## WALES IN A DAY CAERNARFON

**Date:** 26 September

**Distance:** 190 miles

**Price:** £100

**Enter:** [opencycling.com](http://opencycling.com)

The numbers say it all – 190 miles (305km) and 4,500m of ascent. Still think you're up to it? Those fairly terrifying numbers tell you what to expect here, and this event isn't for the faint-hearted. It's one of those epic rides you take on and finish – then brag about for the rest of your life. Starting on the north coast of Wales, and winding its way down through the country to Chepstow, with full support and transfers back to the start, it sounds like one tough, but cracking challenge.



## ISLE OF MAN CC DOUGLAS

**Date:** 26-27 September

**Distance:** 1/2/3 laps (37.7 miles per lap)/  
24-hour Challenge

**Price:** £35/£45/£55/£180 (plus team prices)

**Enter:** [isleofmancc.com](http://isleofmancc.com)

With options to take on one to three laps, or, for the truly dedicated, a 24-hour ride over both days, there's something for everyone. This event is fully supported with feed stations and support vehicles, TT marshals on the junctions and, this year, a new event village built in the grandstand.

## TOMMY GODWIN CHALLENGE BIRMINGHAM

**Date:** 27 September

**Distance:** 62/18 miles

**Price:** £20/£10 (family of four £20)

**Enter:** [tommygodwinchallenge.weebly.com](http://tommygodwinchallenge.weebly.com)

Started in honour of 1948 Olympic cycling champion Tommy Godwin who lived locally, this centrally located ride will appeal to both newcomers and younger riders – as well as those looking for a less punishing ride. The 100km (62 miles) sportive features a rolling route that weaves through Warwickshire and two mostly gentle climbs; while the 30km (18 miles) route is tailored to suit those after an easier ride, with families and women particularly welcome.

## CLIMB OF THE MONTH

### NORWOOD EDGE, NORTH YORKS

A Yorkshire classic, within spitting distance of Leeds, Bradford and Harrogate

They breed their bike riders tough in Belgium. Our small Leeds University club run had just scaled the not inconsiderable mass of Norwood Edge, a brute of a climb 15 miles north of our digs in Headingley, just north of the city centre. Our Belgian exchange student friend Stan rolled up to the summit 30 seconds after us, an unsurprising deficit given his heavy cyclocross bike with knobbly tyres and no bottle cages. 'Do you want a drink?' we asked, offering our bidons to a brother of the road. 'No, it's ok,' he said, matter-of-fact, reaching into his back pocket to pick out a pre-cut lemon that he proceeded to suck dry.

And truly, Norwood Edge is one of those climbs that makes sucking lemons seem palatable.

It starts out at the crossing of Lindley Wood Reservoir, as seen in the opening sequence of ITV's long-running Yorkshire-based soap *Emmerdale*. The climbing starts steeply through woodland on a good wide road with a pretty terrible surface. The early steepness is the killer here, as it forces you to hit the later, gentler slopes already pawning your family jewels to pay an untenable oxygen debt.

It does get easier though – but not much – and it comes as the trees thin and the view south opens up. A long, sweeping alpine-style turn leads you into Forestry Commission land and the perception that you've found yourself abroad somewhere. Or at least Scotland.

The summit isn't much to look at so keep rolling on. Norwood Edge is a great descent in its own right, being fast and wide, but the roughness on the lower slopes isn't for everyone. The far preferable option is to continue rolling over the top and back to Otley via pretty the lanes around Fewston Reservoir.

## VITAL STATS

**Length:** 1.8km

**Elevation:** 174m

**Average gradient:** 9%

**Maximum gradient:** 16%





# SLAVES TO THE RHYTHM

Killer alpine climbs take no prisoners – but could our team stay the distance?

WHERE: **ALPE D'HUEZ**

TOTAL DISTANCE: **161KM**

TOTAL ELEVATION: **5,691M**

**A**lpe d'Huez Grand Domaine is right at the heart of France's southern alps with five lift-linked destinations: Alpe d'Huez, Oz en Oisans, Vaujany, Auris en Oisans and Villard Reculas. During the winter, it's renowned for its incomparable skiing, but once the snow has melted it becomes the playground of the cyclist.

The most famous climb in the region is Alpe D'Huez itself; synonymous with the Tour de France and over the years, the setting for many of the race's greatest battles. Whether that's back in the Armstrong/Pantani era – the latter still holds the record for the fastest ascent (37 minutes and 35 seconds back in 1997) – or as recently as this year's Tour with Quintana's dramatic bid to snatch victory from Froome on its slopes. *BikesEtc's* intentions on the climb were a little less ambitious: we would be happy to make it to the top without stopping.

Alpe D'Huez isn't the only col with Le Tour connections, and the day before we rode it we tackled the far more picturesque – and frankly tougher – Col du Glandon. Situated 10km from Bourg D'Oisans and rising to 1,924m, it's not only longer, but steeper too – with some sections hitting a 12% gradient. Still, stunning vistas made the pain worth it.

The landscape changes dramatically over the 21.3km to the top, taking in arid bare rock faces, shaded tree-lined passages and green rolling hills, culminating in a view that (on a good day) glimpses Mont Blanc. It's a hard climb made all the more testing by near 40°C temperatures, but the breathtaking scenery takes your mind off of the painful legs and burning lungs. Well, for the most part.



As we were staying in the ski resort of Alpe d'Huez we had to descend the climb before we went back up it. Negotiating its 21 hairpins downwards proved to be tough on the fingers, but once we'd warmed up on the straight roads in the valley we were ready to head back up. We rode it as part of a weekly time-trial that's run from the Bourg D'Oisans tourist office every Wednesday at 10am.

We were told the steepest parts of the climb are at the start and the end, and the first 10 or so hairpins backed this up. At 1,850km of elevation gain over 13.8km the climb is vicious and takes no prisoners. It really is a case of finding a rhythm and doggedly sticking to it.

**THE SCENERY IS AS VARIED AS THE EMOTIONS IT ENGENDERS**





## HOW WE GOT THERE

Alpe d'Huez is a bit off the main routes but well worth the effort

### TRAVEL

EasyJet flights from London Gatwick to Lyon start at £62 return (£31 each way). Return bike carriage is £70 and it's £30 for a hold bag.

[easyjet.com](http://easyjet.com)

It's a two hour transfer from Lyon airport (Saint-Exupéry) and we used taxi Chalvin ([taxi-alpedhuez.com](http://taxi-alpedhuez.com)).

A private taxi carrying up to four people costs from €300, Lyon Saint-Exupéry airport to Alpe d'Huez.

For rail travel options see [sncf.com](http://sncf.com)

### ACCOMMODATION

Not being a skier, I'd never experienced chalet living and I have to say I was mightily impressed. The VIP Ski Club chalets in Alpe d'Huez are situated at the top of the resort and offer easy access the routes and mountains. Prices throughout the summer season start from £145 per room per night on a half-board basis, and serviced self-catering and B&B are available on request.

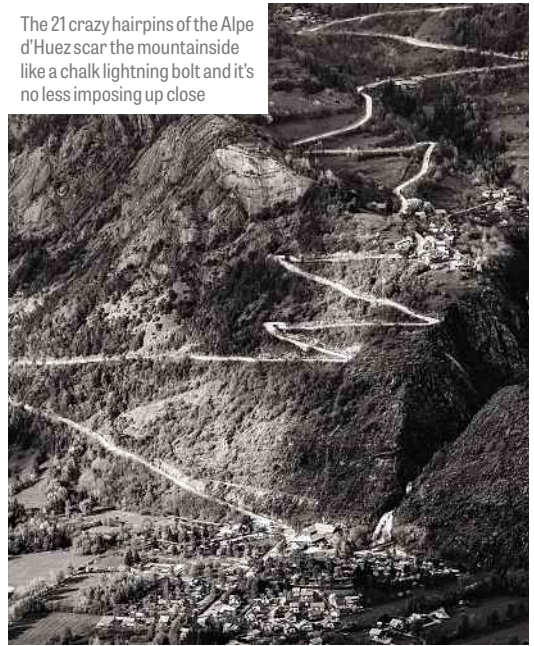
[vip-chalets.com](http://vip-chalets.com)

### BIKES

If you don't fancy taking your bike with you, there are plenty of places to hire one. The Trek Domane we rode was supplied by the Trek Bicycle store. Prices start from €40 per day for the Domane 4.3. For more information call (+33) 04.76.11.37.88 or email: [eurosports-zeshop@orange.fr](mailto:eurosports-zeshop@orange.fr)

[alpedhuez.com](http://alpedhuez.com)

The 21 crazy hairpins of the Alpe d'Huez scar the mountainside like a chalk lightning bolt and it's no less imposing up close



'I'm sure the route's going to flatten out around here at some point, somewhere'



Unlike the previous day, there is nothing to take your mind off D'Huez's relentless grind – you only get to appreciate the scenery if you take your eyes off your headset and look over your shoulder. There were other things to catch the eye, though. We were there the week before the Tour hit and were astounded to see mobile homes and makeshift camp sites already dotting the side of the climb in anticipation of the *Grand Boucle*. By the time the Tour reached them, the locals were expecting up to a million people to line the climb. On the day we rode it only a few generous souls cheered us on – despite giving a very modest indication of

what the pros would face seven days later, the encouragement was especially welcome.

## BACK TO THE GRIND

The brief respite between hairpins 10 to 15 ended and the gradient ramps up again to 10-11%. Although the early start meant we were never going to be in the 'dead zone' heat of the midday, the mercury was rising into the low thirties. At around hairpin 17 you can see the village of Huez above you, looking so near, but also frustratingly far. Not as far as for the the pros, though. For the purposes of the time-trial, the finish line is not long after you enter the village – the Tour itself has another

kilometre of fairly steep climbing to go. The designated stop was fine with us, though and as we crossed the finish line we were happy to be able to say we made it up such an icon of the sport. We weren't going to be troubling Pantani's record, but then neither will anyone else outside of the pro peloton.

The beauty of Alpe d'Huez grand domaine is that there's so much more to the area than just that climb, and the afternoon took us on another adventure to Col de Sarenne, one that was just as challenging as the previous rides, with even more spectacular scenery. Make no mistake. Truly, the Alpe d'Huez grand domaine is a two-wheeled paradise. ☘



# CHEESY STREET

Somerset shows it has a lot more to offer than cider and the odd bit of cheese

WHERE: **WELLS, SOMERSET**

TOTAL DISTANCE: **122KM**

TOTAL ELEVATION: **1,021M**

**O**ur ride starts in Wells, which, depending on who you speak to, is either a town or the smallest city in England. It has a cathedral, so fulfils the criteria for city status, yet its population is just 11,343. Setting off through its narrow cobbled streets to the nine o'clock chimes of the cathedral clock, it doesn't take more than a few minutes for the early morning bustle of the town (city?) centre to segue into neat rows of cottages and quiet country roads.

Our first hill of the day is up the Old Bristol Road, which featured in stage 6 of the 2011 Tour of Britain, when Lars Boom of Dutch team Rabobank took the win into Wells, leaving Geraint Thomas's GC hopes dashed as he finished 1m 24s down after a crash. Today we're tackling this first category climb from the other side, and I quickly realise how Boom et al managed to clock over 100kmh as they plunged down it into Wells. Averaging around 6%, it kicks up to 16% in places.

There's an unmatched quality to Britain's green and pleasant countryside. Dry stone walls encircle forests of ash, while the occasional rabbit skips in and out of the hedgerows. The Old Bristol Road goes onwards into the Mendip Hills, but we're eager to get to Cheddar Gorge, so we turn off onto the B-road that snakes its way through the gorge towards Weston-super-Mare.

Even before we get there it's clear what's coming. Signs indicating bends in the road, decreeing slow speed and warning against falling rocks dot the verge as the scenery makes an abrupt change from *Watership Down* to *Lord Of The Rings* country.

Although it's early on a Tuesday morning the road is getting steadily busier; a reminder of not just how many tourists Cheddar Gorge attracts, but also of just what one should expect when riding in such places: there's only one road in and one road out.

Since we're here, it would be churlish to not give the other side of the gorge a bash, so as the road reaches its lowest point we turn tail to tackle the climb towards the gorge's eastern entrance. Things are going well – the sheer, shrub-pocked limestone cliffs ebb away as we put vertical metre after vertical metre into it, but before we can get too complacent, we round a tight hairpin only to encounter a bus. Not a problem they encountered on the Tour of Britain.



We descend quickly, but not quite as fast as the Tour of Britain pros did on these roads in 2011

Eventually, the Somerset countryside gives way to the quaint seaside air of Weston-super-Mare, and as we drag our way through the crosswinds whipping off the sea, the pier stands against the elements as a shining example of dogged Britishness.

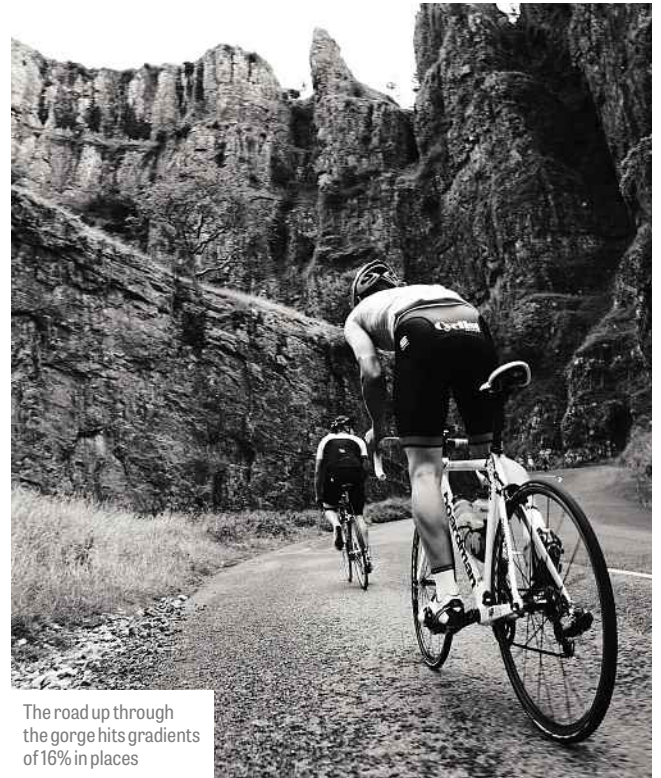
Swinging back inland the road is flat and the ensuing kilometres easy, but no sooner do we start to relax into our rhythm than the road ramps. Decent tarmac is replaced by mud-strewn country lanes, which take us on a winding route past Blagdon Lake and towards Nempnett Thrubwell. We're still discussing the brilliantly ridiculous names of British country villages when we stumble across the delightfully titled Awkward Hill and are soon left wishing we'd paid less attention to funny place names and more attention to our maps.

The final leg of our journey takes us back down into Wells via a spiky 15km road, but the final drag back into town/city is a downhill stretch that provides a welcome last boost to our weary legs, and as we roll slowly through the streets, we find ourselves back in the same spot we departed from this morning, the sun going down over Wells cathedral. 🚲

**'THE SCENERY ABRUPTLY CHANGES FROM WATERSHIP DOWN TO LORD OF THE RINGS'**







The road up through the gorge hits gradients of 16% in places



Once past Cheddar Gorge, the terrain becomes much easier

## NEGOTIATING THE GORGE

### Follow *BikesEtc's* Somerset ride

Beginning in Wells, take New Street (A39) onto Old Bristol Road. Wind your way past Mendip Forest and take the left signposted the B3135. Follow it through Cheddar Gorge, forking right at the end of the gorge up Axbridge Road/A371. Stay left past Axbridge, and follow the road to Bleadon. Follow the A370 round the coast through Weston-super-Mare, cross over the M5 then take a right down Puxton Lane. Continue south until making a left onto the A368 before joining up with the Bristol Road/A38, then dropping right onto Cowslip Green. Make a left on Aldwick Lane, left onto Blagdon Lane, then right to Nempnett Thrubwell. Head up the Upper Strode Road before bearing right onto Broad Mead Lane, which winds into Bristol Road. At the Chew Stoke Junction, bear left to Wallycourt Road, round the reservoir and down Sutton Hill Road. Follow the signs to Chewton Mendip, briefly back onto the A39 before turning left onto the B3114. Follows the signs back into Wells.

Words: James Spender Photography: Juan Trujillo Andrades





# Type cast?

There's plenty of room in the peloton for all kinds of riders – so don't be a square peg in a round hole



In between stints presenting the news on Channel 5, Matt Barbet indulges in his passion for cycling by heading up ITV4's *The Cycle Show*

It had been a while since I'd tasted my handlebars. But there I was, straining on too big a gear with my chin almost resting on the tops. The allure of the Dolomites had proved too romantic to turn down and after seeing Tour winner Cadel Evans blast off up a 10% climb, I had to try and follow suit. What an idiot.

I'm no natural climber, or *grimpeur* if we're using the French. In this part of Italy, *scalatore* is more appropriate. I'd been lured to these magnificent mountains by the Trois Etapes where, as well as filming the race for *The Cycle Show*, I was in one of the four charity teams, taking on five timed general classification sections over three days. The plan was around 210 kilometres, but we were to climb over 6,300 metres in that distance.

I'm always riding, so my base fitness on the bike is fine. However, emulating climbs that can take over an hour isn't easy in south-east England. Sure, there are plenty of inclines, and you can rack up a decent amount of ascending in a morning on the North Downs. But no repeat climbs can adequately replicate the sustained effort it takes to scale something in the Alps, or, when it goes well, the sublime rhythm you can find without worrying about turning around and doing it over and over again.

Luckily, a week before, I had planned a family holiday to cyclists' theme park Majorca. I say family holiday – my wife and two daughters are now

accustomed to my trusted companion (Bike Box Alan) coming with us. In between trips to the beach and getting ice creams, I squeezed in a handful of hard rides with a few even harder riders.

My mates Alex and Reece were on the island. They race fixies in the Red Hook Crit and are always going at full gas. As we pummelled the pedals on the way to the island's famous lighthouse at Cap de Formentor, I felt a twinge of climbing form returning to my legs.

What sweet hopes had been raised vanished a couple of days later as I did the same climb with Alex Dowsett. At the time, he was still holder of The Hour record, and as we pushed up the road he explained how he'd gained some muscle bulk and was determined to get back to a more appropriate weight for going uphill. I, on the other hand, did no talking, as his conversational pace saw me teetering at around 400 watts, thinking about how I had also gained bulk, but around my bulging middle in pursuit of record-sized portions of the local *jamón*.

## IF THE CYCLING CAP FITS

Having your pace set by other riders is one of the most painful things you can experience on a bike, wherever the ride. So a couple of days later I vowed to attack the near-mythical Sa Calobra solo before climbing Majorca's highest road up to the Puig Major. It was going to be an altitude fest.

I set off at sunrise, and went at the winding climb with gusto, getting to the top in a respectable 35 minutes. I carried on, and descended the Puig before turning at the bottom to notch up another 1,000 metres of ascending. This was my undoing. It was hot. I hadn't eaten or hydrated enough and my legs were empty. I crawled up the climb like a sorry snail.

Afterwards, I thought I'd surely done enough to cope with the Italian job that was coming a week later. Foolishly (again) I had put my Balearic exploits on Strava, and so my competitive teammates thought I would be Nibali-esque on the likes of the Fedaia and Passo Giau. Unfortunately, my performance was fair-to-middling as I dragged myself up some of the most difficult roads I've ever ridden.

Maybe I'd overdone it in Majorca, and should've rested. Maybe I just had a few bad days. It happens – even to champions like Alex and Cadel. Or maybe I'm just not a natural climber.

Everyone is a certain type of rider. Climbers and sprinters dominate the races, but there's room for *rouleurs* (all rounders) and *puncheurs* who prefer rolling terrain or attacking the short, steep hills found in many of the Spring Classics.

While a pro-sprinter like Cav could out-climb everyone except the most dedicated amateur, and a featherweight *grimpeur* like Quintana still has a kick on the flat;

for mere mortals, life in the saddle is a lot more enjoyable if you understand your limitations and play to your particular strengths.

Of course, try it all, and don't shy away from the suffering when you're pushed far from your comfort zone. If, like me, you're more of a *puncheur* than a *grimpeur*, just remember there's no shame in chanting the following mantra: 'I'm not a natural climber'. After all, not *everyone* is – and some things are only clichés because they're true. ☺

**'It was hot. I hadn't eaten enough and my legs were empty. I crawled up the climb like a sorry snail'**





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